THE LANCET.

## LECTURES

ON THE

ANATOMY, PHYSIOLOGY, AND DISEASES OF THE EYE

By MR. LAWRENCE.

*London Ophthalmic Infirmary, Moorfields.*

### Lecture XVII.

*Internal Inflammations.—Iritis.*

Gentlemen,

Inflammation of the iris first received the name of iritis from J. A. Scmidt, of Vienna, who published a small but admirable description of the affection in 1801 When the clear account of the phœnomena, symptoms, progress, and consequences of this inflammation, contained in the work of Schmidt, is contrasted with the entire ignorance which then prevailed, in this and other countries, on the same subject, we shall become sensible how far the Germans have preceded all other nations in cultivating the ophthalmic department of our profession. A good analysis of this essay, which is in the German language, may be seen in the first volume of the Quarterly Journal of Foreign Medicine and Surgery; the intelligent writer gives a general account of the views entertained by the German practitioners on the subject of iritis.

Iritis is an adhesive inflammation; that is, an inflammation attended with deposition of new matter from the vessels of the inflamed part, under various circumstances and appearances, which, however, has been indiscriminately called by the not very precise term of coagulable lymph. The chief character then of the affection is this effusion of lymph, either into the texture of the iris, or in distinct masses on its surface, or in a more or less fluid form. This effusion of coagulable lymph, besides changing the colour and general appearance of the iris, impairs and destroys its motions, rendering it at first sluggish, and afterwards motionless; connects and renders it adherent to surrounding parts; alters the form and size of the pupil, and obstructs that aperture, with more or less injury to vision.

*Symptoms.*—Inflammation of the iris is attended with the ordinary signs of ophthalmic inflammation. The general symptoms are, more or less external redness, pain, increased sensibility to light, and increased lachrymal discharge. One of the most striking circumstances which characterises inflammation of the iris is, the change of colour which it undergoes. When a light-coloured iris, that is one of a blue or grey colour, is the seat of inflammatory action, it assumes a yellowish or greenish tint, sometimes distinctly yellow; and if the eye be blue, a striking greenish tint is produced; at other times it has rather a muddy or confused appearance. In case of the iris being naturally dark-coloured, it presents under inflammation a reddish tinge. In conjunction with these changes of colour, there is a complete loss of its natural brilliancy; it appears dull, and its fibrous texture is confused; you cannot observe the radiated fibrous appearance which it displays in the healthy state. These changes which are rendered particularly obvious by the contrast between the inflamed and the sound eye, commence in the *pupillary margin;* and if you have an opportunity of observing a case accurately from the beginning, you will find that the alterations spoken of begin upon the very edge of the pupil; the internal circle of the iris is first affected, altered in colour, and thickened, and then the disease gradually spreads towards the external or ciliary circumference of the iris. This change of colour is produced by the effusion of new matter into the texture of the iris; of that material which is called coagulable lymph, and the particular tint arises from the mixture of the yellow lymph with the natural colour of the iris.

This deposition of coagulable lymph in Iritis shows itself under various forms: 1st, it may be deposited in the texture of the part generally, causing the changes of colour which I have described; or it may form a pretty general stratum covering the iris. 2ndly, It may appear as a yellow abscess or abscesses, slowly arising on the surface of the iris, having a bright yellow colour, and pretty regularly convex surface, ultimately bursting and pouring out pus, which sinks to the bottom of the anterior chamber, exhibiting the appearance called hypopyum. 3dly, The lymph may be effused in distinct masses, in small tubercles of yellowish, brownish, or reddish hue; these are often deposited upon the pupillary margin, sometimes on the ciliary edge, or they may occur on any part of the anterior surface. They may vary in size from that of a pin's head to a split pea; there is often only one; there may be two, three, or more. When they are numerous, and the inflammation very active, you may have the lymph secreted so abundantly, as nearly to fill the anterior chamber. 4thly, The effusion may take place from the posterior surface of the iris, from the uvea and posterior pupillary margin, and thus partial or general adhesions are formed between these parts and the capsule of the crystalline lens; thus, too, a substance is produced filling the pupil, and subsequently organized into an adventitious membrane permanently obstructing that aperture to a greater or less degree. 5thly, You may have pus effused from the iris, or a substance, of which the appearance is not distinguishable from pus; it is fluid, of a yellowish colour, and sinks to the bottom of the anterior chamber. 6thly, Blood itself may be effused under violent inflammatory action; it is sometimes seen alone, but more commonly mixed with the matter of hypopyum, or with the tubercular masses of lymph. In a few instances it has occurred to my notice, where the inflammation has not been of the most violent kind. Such are the various appearances caused by the effusion of that new matter called coagulable lymph, in the adhesive inflammation of the iris.

You naturally expect that the motions of the iris would be impaired, when it is undergoing this kind of disorder; when you have the very delicate texture of the part so much disturbed, and its interstices filled with a new substance, you cannot expect it to be very active. The motions of the iris are impeded at the very commencement of the inflammation, and when effusion takes place, they are completely destroyed. The change in the structure, and the preternatural connexions by adhesion coincur in producing this effect. The pupil consequently cannot exhibit the ordinary changes of dimension. It is contracted, and it becomes smaller and smaller, in the progress of the affection. At the same time the effusions of lymph and the adhesions change its figure, often rendering it extremely irregular. These alterations and irregularities become more conspicuous as the inflammation subsides, because the general contraction is less, and the margin dilates in the intervals of the adhesions. Together with the other changes, the pupil sometimes undergoes an apparent alteration of situation, being drawn upwards and inwards, or towards the root of the nose.

The margin of the aperture throws out coagulable lymph, and as it is contracted at the time, a sort of web-like or fibrous structure is stretched across it, completely filling up the opening, and of course obstructing the passage of the rays of light to the interior of the organ. From the very beginning of the iritis, alterations are first seen upon the pupillary margin; it becomes thickened, and has a spongy appearance. If you look at the pupillary margin in a healthy eye, it has a peculiarly sharp and well-defined edge; but it becomes thickened by the inflammatory process.

There is some intolerance of light in the beginning; the sclerotic coat participates in the inflammation more or less, and there is consequently a greater or less degree of increased sensibility. If the inflammation be not relieved by proper treatment, an opposite state succeeds, or dimness of sight, caused by the changes which now take place in the pupil and cornea, preventing the admission of light into the eye. There is generally more or less pain from the commencement. Its degree varies according to the acuteness of the attack; it may be considerable, with burning sensation and tension, deep seated in the globe and orbit, and extending to the head; or it may be slight. It often extends around the orbit, and sometimes to the front or back parts of the head; patients often complain of severe pain in the surrounding bones, in the temple, brow, cheek, and nose, not seeming to suffer in the eye itself. This pain in the bones has nocturnal exacerbations; the patient will have hardly any uneasiness during the day, but as evening comes on, or soon after bed-time, the pain begins, and increases so much, as frequently to deprive him of rest.

I have mentioned to you that there is more or less external redness; and this redness is of a limited or partial extent; you see a narrow red band or zone around the cornea; in the very commencement of the affection, you see the pale pink blush of sclerotic redness, while the rest of the globe is natural; but, although the conjunctiva is not altered, you will see under it the sclerotic trunks in a state of distension. The vessels of the conjunctiva become distended also, but only on the front of the sclerotica. I think I may say that you will never see inflammation of the iris unaccompanied by this red zone of vessels, on the sclerotic coat. In acute iritis, this zone is often of a vivid red, and it lasts as long as the inflammatory action of the iris continues unabated. This circular arrangement of vessels on the sclerotic is manifestly dependent upon the state of excitement in the arteries of the iris, but we are not sufficiently acquainted with the vascular connexion which exists between the sclerotic, cornea, and iris, to account for the phenomenon altogether; the sclerotic coat becomes more or less inflamed with the inflammation of the iris, and you cannot have a decided inflammation of the cornea without the sclerotic becoming also inflamed. The dependence of this red zone on the inflammation of the iris is clear; usually the whole of the iris is the seat of inflammation, but not necessarily so; you may have only one point of the iris inflamed, and you will in that case find the red vessels of the sclerotic confined to the part opposite to the inflamed portion of the iris. Again, when the whole of the iris is inflamed, it generally happens that one point is more inflamed than another, and the redness of the sclerotic coat will be found to correspond in degree with the inflamed part of the iris.

When the sclerotica is thus inflamed, and its vessels distended, you will anticipate change in the state of the cornea. General haziness occurs in the commencement of the affection; it is aggravated, as the case proceeds, and nebulous opacity comes on when the inflammation is very violent and long continued. This change is general in most cases; there may be a more considerable partial alteration of structure with the general haziness or nebula. Sometimes there is external ulcer. These corneal affections will add to the imperfection of sight caused by the change in the pupil.

With respect to the degree of constitutional disturbance, that is very various. The febrile symptoms are severe, when the attack of iritis is acute, whilst in the chronic, or lower kind of inflammation, the constitutional symptoms are slightly marked.

During the occurrence of the changes now described, which might be divided into two stages, 1st, that of *congestion*, 2dly, that of *effusion*, the iris swells, or appears to swell. It approaches towards the cornea, becoming convex on its anterior aspect, diminishing the anterior chamber, and sometimes becoming puckered and irregular on its surface. Is this an actual swelling of the iris, real thickening of texture? or mere locomotion, protrusion by aqueous or other secretion behind? Dissection has not yet elucidated these questions. Does this protrusion of the iris ever occur, except in conjunction with adhesion of the entire pupillary margin, and consequent intercepted communication between the two chambers? I rather think not, but cannot speak certainly.

If the affection goes on unchecked, the inflammation does not remain limited to its original seat in the iris. It is at first confined to the very border of the pupil; it creeps on from the pupillary to the ciliary circumference of the iris, and then presents the combination of symptoms which I have before described to you; but supposing the inflammation to continue without interruption, we can easily imagine that it will extend itself to the corpus ciliare, choroid coat, and retina, with increase of pain and fever, and ultimately with irrecoverable loss of vision, in consequence of the retina having become the seat of the same vascular disturbance observed in the iris. At the same time, the mischief is propagated forward, the cornea becomes more opaque, the conjunctiva becomes more inflamed, and great external redness of the eye is added to all the other symptoms, so that it becomes at last a case of complete ophthalmitis, inflammation affecting both the external and internal tunics of the organ.

When the state of active excitement has subsided, when the vascular congestion, by which the painful symptoms are produced, has been diminished, we observe the permanent changes of structure consequent on the inflammation. General adhesion of the iris to the cornea, with considerable change in the latter, may lead to the state of staphyloma; or the eye may be flattened anteriorly, if the iris should have become adherent on both surfaces; but these are not ordinary consequences of iritis.

When the inflammation has been very violent, when it has affected the whole structure of the iris, great disorgani-

zation will be produced; you will have the colour of the part altered, so that it will not be at all like a healthy iris. You may be very sensible of the change the iris gradually undergoes in colour, by comparing it with that of the sound eye. In many cases, you will find the pupillary margin adherent throughout to the capsule of the lens; the iris no longer forms a level partition between the anterior and posterior chambers, but it is elevated into a convex protuberance, which is puckered in various places. It has commonly a dull leaden colour, and white tough-looking fibres are intermixed. The cornea may be clear, or more or less opaque. Vision is irrecoverably lost in these cases. Here it has not yet been ascertained, whether the iris be thickened or pushed forwards by secretion behind. This is the greatest degree of disorganization; the change is not so extensive in all cases.

As regards the pupil, the lymph thrown out from its margin is sometimes in such quantity as to produce complete closure, or *atresia iridis*. Contraction of the pupil is almost an invariable symptom of iritis, and this contraction may go on to complete obliteration of the aperture. In other cases the contraction proceeds until the pupil is reduced to the size of a pin's head, and this diminished aperture is filled with a tough opaque and firmly adherent substance, so that vision is as completely prevented, as if the pupil had completely closed. These states of the iris are called *atresia iridis perfecta*. Vision is lost, but not permanently, at least not necessarily so; since the retina may retain its sensibility, and an operation may restore sight. Again, you may have contraction of the pupil, with some or the whole of the opening occupied by the adventitious membrane produced by the inflammatory process, and this state of the iris is called *atresia iridis imperfecta*. In this case, the imperfection of vision will depend upon the size of the opening, the density of the adventitious membrane, and its extent.

Partial adhesions of the pupil are a very common consequence of iritis; they vary much in extent and number. Sometimes a portion of the circle is closely fixed to the capsule, the rest being free. More commonly, the preternatural connexion is effected by slender threads, so far elongated as to allow of some motion: there may be only one, or many of these fringing the whole opening. Such elongated threads are dark-coloured, that is, they are of the same colour as the edge of the pupil or uvea. Like other adventitious or newly-formed parts, they partake of the nature of the surface which produces them. Under suitable treatment in an early stage, the adhesions of the pupil are sometimes detached, and then a black mark is left on the capsule, which mark is permanent. In consequence of the blackness of the pupil, these dark-coloured marks escape notice; they are, however, occasionally detected by close examination with a strong light on the pupil. I have seen a complete circular series of such marks, which I discovered while accidentally examining the eye with the sun shining upon it. They are rendered very obvious if cataract takes place. In some cases the adhesions are white. These changes must necessarily affect the figure and motions of the pupil; but such alterations are not at all injurious to vision. Sight is just as good with the most irregularly shaped pupillary aperture, as with one perfectly circular; and we often see perfect vision with great and permanent contraction of the opening. I am supposing, of course, that the retina is uninjured, and that the pupil, however irregular or small, is clear. When much alteration has occurred in it, there is reason to apprehend other changes in the organ.

In conjunction with pupillary adhesions, or without them, the iris may be permanently altered in colour, especially in its inner ring; and its motions are at the same time impaired or entirely lost.

Lastly, by proper treatment, the iris may be completely restored, recovering its brilliancy, original colour, and motion, the pupil contracting and dilating as usual.

When the inflammation has been violent, there is some danger of permanent opacity of the cornea. Opacity of the crystalline capsule may be produced, independently of the effusion of lymph upon that structure, from the extension of the inflammatory action. The iris lies almost in contact with the capsule, to which the ciliary processes and corona ciliaris, are closely connected, so that we cannot be surprised if severe inflammation in the one should extend to the other.

*Causes.*—The causes of iritis are the same as those of other ophthalmic inflammations; they are, *first*, direct injuries done to the organ by the various surgical operations and incidental injuries; *secondly*, the iris will suffer from the injurious influence of over exertion, as in the long employment of the eye on minute objects, and in this way iritis is often produced on those whose occupations are attended with continued close application of the sight. It is difficult to point out any circumstance that should predispose to inflammation of the iris rather

than of the retina, or *vice versa*. However, with respect to iritis, we know that it is particularly apt to occur in certain states of the constitution, and some have even questioned whether there is any such thing as idiopathic iritis, except as the result of direct mechanical injury. The unhealthy conditions of constitution are those produced by morbid poisons, as in syphilis, or those occurring in individuals who are subject to gouty and rheumatic complaints. In these cases there is a disposition in certain textures to become diseased; observation discloses to us that fact; but I can give you no reason why the iris should particularly suffer in these unhealthy states of constitution. In corroboration of this remark, I may observe to you, that iritis is rare in young subjects, in whom these states of the system do not exist; it is comparatively uncommon before puberty. It may become affected by extensive inflammation from the external coats under neglect or improper treatment: but I am now speaking of genuine iritis, of inflammation commencing in and confined to that structure, and that certainly is a rare affection in young persons. I think there can be no reasonable doubt that iritis does occur in adults from the operation of common causes, although perhaps more frequently in those who exhibit the conditions of constitution before alluded to.

*Prognosis.*—The prognosis is favourable in proportion as the affection is recent and confined to its original seat in the iris. Continuance of the inflammation is necessarily accompanied by greater contraction of the pupil, and by augmented effusion of coagulable lymph, and by its organization into those adhesions and new opaque substances, which, together with the contraction, so frequently injure or destroy sight. The progress of the affection is further injurious by affording opportunity for extension of inflammation to the cornea, which may be thus rendered opaque, and to the posterior parts, including the retina, so as to extinguish vision in its very seat. However considerable the changes may be, if they are confined to the iris, you need not entertain apprehension for the result. The inflammation may be controlled; and, when it is arrested, extensive changes of colour, large effusions of lymph, matter and blood, and great contraction of the pupil, will be removed. The mere quantity of effusion is of little moment. Before pronouncing the prognosis, we should closely examine the organ, and inquire into the symptoms, to decide the question whether the posterior tunics are involved. The state of vision alone will not decide this; the affections of the cornea and pupil impair vision considerably, and the patient is often unable to distinguish objects, and reduced to the mere power of discriminating light and darkness in cases where sight is completely recovered.—Indeed, such a state of vision is sometimes seen, where the cornea is clear, and the pupil not visibly obstructed, and yet the sense is recovered; so that even affection of the retina is not necessarily a ground of unfavourable prognosis. A change of colour in the whole iris, with considerable contraction of the pupil, and an opaque substance in it, with intense external redness, great and deep-seated pain, and complete extinction of light, presents a hopeless case. Great contraction and general adhesion of the pupil, a protruded and puckered state of the iris, are very unfavourable circumstances. Great imperfection of sight may be removed if the case be recent, but not if it be of long standing. Cases differ so much in their rapidity, and the violence of the symptoms, that we can hardly speak of definite periods. We confidently expect to arrest the inflammation and restore the organ when iritis has lasted a fortnight, or three weeks, and we often succeed in cases of a middle kind as to severity, at the end of a month. We must take a combined view of the activity and duration of the inflammation before we decide on the probable termination. The young practitioner must guard against a hasty unfavourable opinion: the power of treatment is very great. We often see cases apparently desperate successfully treated.

*Treatment.*—In an acute case, where the inflammation is strongly marked,—where there is great vascular congestion, with severe pain and constitutional disturbance; where we have reason to fear that inflammation may extend from the iris to the posterior tunics, or more particularly if we should suppose that such extension has already happened, we must immediately adopt the most active antiphlogistic treatment in all its parts. You must take blood by venesection and by cupping from the temples, and repeat these, or the use of leeches, as long as the active state of the inflammation may require such measures; give an active purge, and afterwards saline medicine with antimony; put the patient on a low diet; and guard the eye from all injurious external influences; keep the body perfectly at rest as well as the organ itself. Local applications cannot be of much service in so serious an affection

of parts comparatively internal: tepid washes will perhaps be most soothing to the patient, who may, however, employ cold applications if he finds them more agreeable. With the free employment of these depleting measures, we may combine the effect of counter-irritation by blisters. The constitutional measures now described will lessen the local disturbance, and moderate the accompanying general excitement, but they do not stop the inflammation, or arrest the effusion of lymph. They moderate the violence of the inflammation, and give great relief to the patient, but the action of the capillary vessels, the essential agents of the mischief, is found to continue; the effusion of lymph goes on and the alterations of structure before described are the result. Some further power is necessary to put a stop to this destructive and disorganising action, and that power is afforded by *mercury*, not however when employed as a purge merely, nor in those small doses given at considerable intervals, which have been called alteratives, but in such a way as to produce a decided effect upon the system in a short period of time. Now the mercurial action thus speedily produced cuts short the inflammation, puts a stop to the effusion of lymph, and causes the absorption of that already effused; thus not only preventing further morbid changes, but remedying those already produced. The redness diminishes, and the patient is easier; the effused lymph, in whatever form, begins to lessen and is speedily removed; the distinct masses are absorbed; the adventitious layer is removed from the pupil; the colour of the iris is restored last. The zone of vessels on the sclerotic begins to look pale and soon disappears. Small doses of mercury are quite inadequate to the production of these changes, and I do not know how it has happened that such doses have been called *alteratives*, for they certainly will produce no alteration in a decided inflammatory attack of this kind; they will not change or stop the inflammatory action, while on the contrary, if any such effect is to be produced by mercury, it must be employed in *large doses*. After the bleeding, either from the arm or locally by cupping and leeches, and after clearing out the bowels by purgative medicines, you may commence the use of mercury, and the best form of employing it is *calomel* combined with *opium*, as two, three, or four grains of the former, with one-fourth, one-third, or one-half a grain of the latter every eight, six, or, in important cases, every four hours. In this mode of employment, the influence of the remedy will soon be perceived upon the system. You may, under peculiar circumstances, give blue pill, or the hydrargyrum c. creta, if calomel should disagree with the patient. Under similar circumstances, or if from any cause the internal use of the remedy cannot be borne in the requisite extent, mercurial friction may be resorted to, either alone or in conjunction with the calomel and opium, or blue pill. In conjunction with the employment of mercury, you should also use the *belladonna*; if the inflammation be active, smear the moistened extract upon the brow; when the organ is no longer irritable, you may drop the solution of the extract, in the way I before mentioned, between the lids. The use of the belladonna will prevent that contraction of the pupil to which there is such a powerful tendency in iritis. It is of the greatest importance, not only in preventing further contraction, but because its influence on the iris is so great, that where adhesions have already taken place, if the effusion be very recent, the contraction of the iris will elongate the masses of effused lymph, stretch them out, and frequently completely liberate the pupillary margin. But the belladonna cannot do this alone; two conditions are necessary in order to the accomplishment of this desirable object; the case must be recent, and, with the employment of the belladonna, you must produce, as quickly as possible, a full and decided mercurial effect upon the system. Under these circumstances, I have seen the whole edge of the pupil detached from the capsule of the lens, to which it had been adherent; and as a proof that adhesion had taken place, the capsule has remained marked by the separation of this dark colouring matter from the uvea. In addition to the general employment of mercury, the local use of it has been recommended; it has been advised to make a solution of the oxymuriate, and apply it as a lotion to the eye, but that is a practice I should not recommend. There is one mode of using mercury locally which is attended with advantage; in those cases in which the patients complain of severe pain over the orbit at night, the mercurial ointment, combined with opium, may be rubbed over the eyebrow with great benefit. About gr. vi. of the mercurial ointment, with gr. ii. of finely-powdered opium, should be rubbed over the eyebrow before the recurrence of the nocturnal pain; and for this mode of employing mercury we are indebted to the Germans. Now although it is an excellent application to relieve this parti-

ocular symptom, it is not to be relied on for producing that beneficial effect which the general employment of mercury produces.

A question has been raised, how mercury should stop iritis, and whether it acts in the same way as in curing syphilis? But that question leads us to another, How does mercury cure syphilis? If we search the books, which have been written on the subject, we shall find it said, that mercury cures syphilis by its specific power. Again, if we wish to learn what is the specific power of mercury, we are told it is that of curing syphilis; and such statements are what is called explanations! By saying that mercury cures iritis in a manner analogous to its influence on syphilis, no light is thrown on the subject. In iritis, we see that mercury arrests the adhesive inflammation, that it puts a stop to the effusion of lymph; and we see also that the lymph already effused, becomes absorbed under the influence of the mercurial action. We cannot say precisely what kind of action the mercury does exert on the capillaries of the part, but I should say, that we have no better instance afforded us in the body of the effects produced by disease, and of the influence of a remedy in counteracting and removing them, than we have afforded in the employment of mercury in iritis. There are many other affections analogous to this inflammation of the iris, as croup, inflammation of the peritoneum, pleura, &c. Can we trust to mercury to arrest their inflammation? The beneficial action of the remedy in that adhesive inflammation of the mucous membrane of the trachea called croup, is sufficiently established; but in the other cases, we have not yet sufficient evidence to enable us to decide. As far as I have seen mercury used in such diseases, I have had reason to believe that *it does* exert the same kind of controlling power over them as in the disease we have been speaking of. It is well known that mercury is one of the most active therapeutic agents we can employ, and that we can more safely trust to it, than to any other, for the removal of inflammation; and I think that its beneficial influence in iritis is an example of the general power which it has over the capillary vessels in arresting inflammatory action. Does mercury assist in the absorption of the effused matter? That is difficult to answer; it arrests the inflammatory process, by which the matter is effused, and then absorption begins, and that is all we know. Blood and matter are rapidly absorbed from the eye without any use of mercury.

How long should the use of mercury be continued? and to what extent should it be carried? The more powerful its action on the system, the more effectually does it control the disease, putting a stop to the excited capillary circulation, diminishing the size of the distended vessels, preventing the farther effusion of lymph, and its organization into those new structures, which are so injurious to sight. Often these ends are not accomplished with a slight action on the mouth, when a more powerful influence will quickly do the business. Full salivation, quickly produced, cuts short recent disease, as if by a charm. You may then suspend the remedy, and let its effects slowly subside, which will take two or three weeks; you need not give any more mercury. Salivation, however, is only necessary in some severe and obstinate cases. In general, it will be sufficient to make the mercurial action sensible in the mouth. In cases of longer standing, the influence of the remedy is not so immediate, nor so quickly effectual. You must persevere with it until the lymph is absorbed, until the natural colour of the iris is restored, the red zone round the cornea gone, and vision restored. This will require four, six, eight, or more weeks in some instances. A longer time is usually necessary in relapses and second attacks, than on the first occurrence of the complaint.

[Mr. Lawrence detailed a case of iritis, in which the disease yielded rather slowly, but was well in six weeks. It recurred in consequence of premature exposure to cold, and the patient was obliged to keep the house for twelve weeks in a state of salivation, recovering perfect vision, which has continued unimpaired from that time, now many years ago.]

You will be inclined to inquire why inflammation of the iris should require a different treatment from other inflammations, and whether this free use of mercury be absolutely necessary. It is not absolutely necessary Iritis may go through its course, and come to an end, without the employment of any means: it may be controlled and brought to a conclusion by ordinary antiphlogistic treatment. But the latter does not act so quickly nor effectually in stopping that peculiar action of the capillary vessels, which is evidenced by the effusion of lymph. Hence, although the inflammation may not be violent, the pupil will contract, and new matter will be effused from its margin; the disease may be checked, and subside, leaving the organ apparently recovered, but the adhesions and adventitious membrane in the contracted pupil, resulting from the orga-

nization of the newly deposited substance, permanently destroy or impair vision.

[Mr. Lawrence mentioned a case of iritis, which he treated several years ago without the use of mercury, and in which the inflammatory symptoms were not violent. They yielded rather slowly to the means employed, a partial opacity of the capsule remained, much injuring vision.]

Patients are daily presenting themselves at this Infirmary, who have been treated by common means, and in whom general disorganization of the iris, contracted, closed, or partially adherent pupil, obstruction of that aperture by adventitious organisations, opacity of the crystalline capsule, and loss or serious injury of sight have resulted from inflammations that might have been checked by mercury, without leaving any permanent ill consequence. Let me observe to you that iritis is a very manageable affection; that it rarely fails to yield to proper treatment, even when the case has been originally neglected; and that the serious effects just detailed are chargeable to injudicious management only.

The good effects of the mercurial treatment appear most obvious when it has been resorted to after the failure of other means. [The lecturer here gave an example in point; that of a gentleman, who had undergone for three weeks very active depletion, so as to become pallid and very enfeebled, without any good effect on the local complaint. His sight, on the contrary, had grown more and more dim. The pupil had an hour-glass shape from two adhesions of its edge, the red zone, and the nocturnal pain were unabated, and sight was nearly extinguished. The use of mercury and the belladonna, with more generous diet and wine, very speedily stopped the disease; the adhesions gave way, and the natural figure of the pupil was restored, with perfect vision. He had three relapses in the course of twelve months; the last being the worst; the organ was ultimately uninjured, and remains so at the end of three or four years.]

In conclusion, I recommend to you the free use of mercury in iritis, from the fullest confidence in its efficacy and safety, founded on the very ample experience afforded by this Institution, as well as extensive trials in private practice. I know no treatment that can be more safely depended on for producing the desired effect in any disease, and I am convinced that no remedy nor combination of remedies will supply its place. At this Infirmary it was first employed in syphilitic iritis. Its beneficial effects in that form of the disease naturally led to the extension of its use to other modifications of the disorder. Its beneficial agency, and the particular mode of its action have not escaped the notice of attentive observers in other quarters. [The lecturer here read some quotations from Beer's Repertorium, published at the very end of the last century, in which the virtues of the remedy, in preventing lymphatic exudations, and internal suppurations are very warmly and pointedly extolled.]

---

## REVIEW.

*The Anatomy of the Brain, with a general View of the Nervous System.* By G. SPURZHEIM, M. D. of the Universities of Vienna and Paris, Licentiate of the Royal College of Physicians of London. Translated, at the request, and under the immediate superintendance of the Author, from the unpublished French M.S., by R. WILLIS, Member of the Royal College of Surgeons. With Eleven Plates. 8vo. pp. 234. London, 1826. S. Highley.

FEW men can bring with them sufficient energy of mind, patient industry, and freedom from the trammels of their predecessors, to investigate, with much prospect of success, so vast and intricate a subject as the structure and functions of the nervous system. Dr. Spurzheim, however, like his predecessor Gall, (who, as our readers know, is the author of a new physiological doctrine of the brain,) possesses no ordinary share of these rare and inestimable qualities. By the labours of these and other eminent anatomists, much light has been thrown on the structure of the brain and nerves, and on many of their functions. Towards the conclusion of the last century, Gall discovered the ground-work of his system, and had done much to raise the super-

structure before 1804, when our author, who had long devoted his attention to the subject, became his associate.—Since the year 1513, each has prosecuted the subject by himself, but it would appear that Dr. Spurzheim has latterly outstripped his preceptor, at least he is better known in England than Gall. We consider the labours of these anatomists as the germ of all the additions which have been made to our knowledge of the nervous system, and shall therefore be particular in marking the commencement of their inquiries.—For this purpose we quote the following narrative from Dr. Spurzheim's Preface:

"It was in the year 1800 that I attended for the first time the private course of lectures which Dr. Gall had been in the habit of delivering occasionally at his house for four years. At this time he spoke of the necessity of the brain to the manifestations of mind, of the plurality of the mind's organs, and of the possibility of discovering the development of the brain by the configuration of the head. He pointed out several particular organs of different memories, and of several sentiments, but he had not yet begun to examine the structure of the brain.* Between 1800 and 1804, he modified his physiological ideas, and brought them to the state in which he professed them at the commencement of our travels.†

Dr. Gall having met with a woman, fifty-four years of age, who from her infancy had laboured under dropsy of the brain, and who, nevertheless, was as active and intelligent as the generality of females in her own rank of life, and being convinced that the brain was the indispensable organ of the soul, expressed himself in terms similar to those which Tulpius had used before him, on observing a person afflicted with hydrocephalus, who exhibited good intellectual faculties, viz., the structure of the brain must be different from what it is commonly supposed to be.* He now felt the necessity of examining the mind's organ anatomically. As his medical practice occupied his time, he employed M. Nicias, a student, to dissect for him; but the spirit of this gentleman's researches was merely mechanical, as is allowed in our joint work, entitled, 'Anatomie et Physiologie du Système nerveux en général, et du Cerveau en particulier.'†

Having completed my studies in 1804, I was associated with Dr. Gall, and devoted myself especially to anatomical inquiries. At this period, Dr. Gall, in the Anatomy, spoke of the decussation of the pyramidal bodies, of their passage through the pons varolii, of eleven layers of longitudinal and transverse fibres in the pons, of the continuation of the optic nerve to the anterior pair of the quadrigeminal bodies, of the exterior bundles of the crura of the brain diverging beneath the optic nerves in the direction which Vieussens, Monro, Vicq d'Azyr, and Reil‡ had followed, the first, by means of scraping, the others, by cutting the substance of the brain. Dr. Gall showed further, the continuation of the anterior commissure across the striated bodies; he also spoke of the unfolding of the brain that happens in hydrocephalus. The notion he had conceived of this, however, was not correct; for he thought that the convolutions resulted from the duplicature of a membrane, believing that the cerebral crura entered the hemispheres on one side, expanded there, and then folded back on themselves by the juxtaposition of the convolutions. The true structure of the convolutions, and their connexion with the rest of the cerebral mass, were not described until our joint Memoir was presented to the French Institute in 1808.

The mechanical direction which the anatomical investigations had taken did not appear to me satisfactory. Guiding myself in my inquiries by physiological views, always comparing structure with function, I discovered the law of the successive additions to the cerebral parts; the divergence in every direction of the crural bundles towards the convolutions; the difference between the diverging fibres and those of union; the generality of commissures; the true connexion of the convolutions with the rest of the cerebral mass, and the peculiar structure which

* Exposition de la Doctrine de M. Gall, par Froniep, 3me edit. 1802.

† Bischoff Exposition de la Doctrine de M. Gall, sur le Cerveau et le Crane, Berlin, 1803; et Blœde, la Doctrine de Gall sur les Fonctions du Cerveau, Dresden, 1805.

* Lib. 1, cap. xxiv.

† Preface to the first vol. p. 16.

‡ Gren's Journal, 1795, i. p. 102.

admits of the convolutions being unfolded (an event that occurs in hydrocephalus of the cavities), whilst the mass lying at their bottoms, and belonging, for the most part, to the apparatus of union, or of the commissures, is pushed by the water between the two layers composing them; lastly, I demonstrated the structure of the nervous mass of the spine, and I flatter myself with having arrived at the best method of dissecting the brain and exposing its parts."

Since Dr. Gall and the author published their system, they, as well as other physiologists, have ardently prosecuted the study. Dr. S. himself has made many discoveries, which are embodied with the present work, as are much of the matter and many of the plates of its predecessor.

This work is equally adapted to the student and the anatomist; but before we proceed to analyse its contents, we may observe, that Drs. Gall and Spurzheim have not always received that courteous treatment which, from their indefatigable exertions to unfold the arcana of the nervous system, and the success which has followed their inquiries, they so richly deserved. But if justice be tardy, Dr. Spurzheim possesses too philosophical a mind to despond, to be diverted from his purpose by the taunts of the ignorant, or to relax his energies, although neglected by those who pretend to be the patrons of science. Ignorance may triumph and prejudice blind for a while, but truth must ultimately prevail. The consummation is inevitable.

Here is no metaphysical uncertainty, but palpable and living proof of the anatomist's accuracy, and if not of the entire doctrine of phrenology, at least of the principles upon which it is founded; those persons, therefore, who range themselves as its adversaries, have no occasion, we should rather say excuse, for carping at what may only have been rendered probable, or require time to elucidate while they coolly appropriate to themselves what has been proved. Dr. Spurzheim, one of the most liberal and candid of writers and of men, justly complains of this paltry conduct; but his language forcibly pictures the serenity, which a mind studiously devoted to philosophical pursuits must ever enjoy.

He says:—

"The influence our labours have had on the study of the nervous system is incontestable. To be convinced of this, it is enough to examine the state of knowledge in regard to the anatomy, physiology and pathology of the brain and spinal marrow, when Dr. Gall and I developed our ideas on these matters, whether it was by teaching orally, by dissecting publicly, or by means of our writings. I confess there is great satisfaction in the consciousness of having contributed to the important reform that has been effected in regard to the nervous system. I am only sorry to observe, that many of our ideas are appropriated by the authors of recent publications, without any mention of the source whence they were derived, or of the individuals who first struck them out, or reduced them to certainty by direct proofs. We are commonly enough mentioned, it is true, when such of our assertions as appear weak, are the subjects of criticism, but our names are kept in the back ground when points of importance become the matter of discussion. The public, for instance, by referring to the proper place, may judge whether M. J. Cloquet, in his 'Anatomy of Man,' has been sufficiently explicit in stating, that he has copied every one of the plates of the human brain contained in our large work. M. Serres, whose memoir was deemed worthy of its prize by the Academy of Sciences of Paris, in the first volume of his work, uses our names no fewer than fifteen times, in connexion with a *single idea*, which he fancies he can refute; and generally along with every fact that looks unfavourable to our opinion, he names us, but he always forgets to cite us in relation to very many fundamental conceptions which we had announced at the same time. They who have written to the following effect—'M. Serres has proved clearly the erroneousness of M. Gall's observations, and replaced them by others,' may undeceive themselves by attending to the remark I have just made.

M. Serres's publication forces me like-

wise to request the reader to distinguish between a multitude of words and facts on the one hand, and the corollaries which result on the other. I agree with those who, in works of science, pay especial regard to truths demonstrable to others, to ideas available in practical life, and to clearness and simplicity of style. What purpose can the following passage serve, which occurs in the preliminary discourse of M. Serres, when after having said, that a monster may be a vegetation of its like, that it may have two heads, two tails, and six or eight extremities, but that it would remain strictly confined to the limits of its class, he exclaims:—'This wonderful phenomenon is undoubtedly connected with the general harmony of creation. What may be its cause? We know it not, and in all likelihood we shall remain ignorant of it for ever. It is one of the mysteries of creation, whose surface is meted by man, but whose depths are sounded, and known to God alone.*"

This phenomenon does not appear to me more extraordinary than that a kitten is not a puppy, or that the crab-tree does not produce pears. If the egg of a bird in its ordinary state cannot produce a mammiferous animal, why should the germ of this same egg, if it chance to be imperfectly developed, produce a deformity like to one of the mammalia? Were the case thus, there would be some cause for an amazement, but the universal fact of every animal producing its kind, is not, in my eyes, more astonishing than any other natural event.

Further, the mass of facts cited, the number of dissections made, ought never to impose on us, nor be made a means of concealing the truth. Many of the anatomists who had lived before us, dissected some hundreds of brains, and they made a boast of their doings in this way; but they did not perceive that which I pledged myself to have discovered before I had dissected a dozen; for instance, the successive additions to the cerebral parts, and the two kinds of fibres, to wit, the diverging, and the fibres of union. Anatomists and physiologists had certainly looked upon heads without number; but before Dr. Gall's appearance, had failed to discover the seat of a single cerebral organ. A solitary individual, a beggar, enabled him to detect the organ of self-esteem, precisely as the fall of a single apple revealed the law of gravitation to Newton. Anatomists had seen many human brains, without remarking any differences among them; these, however, are, to say the least, as constant as similarities. The point that essentially interests science is, *the discovery of the truth*, and this is then *confirmed* and established by all ulterior observations."

The work is divided into nine sections; in the first of which the author makes some general remarks on the nervous system; in the second, speaks of the division of the nervous apparatus; in the third, of the nerves of voluntary motion and of the external senses; in the fourth, of the best method of examining the structure of the brain; in the fifth, he particularly describes the cerebellum, and in the sixth, the brain; in the seventh, the commissures; in the eighth, the communication of the nervous parts with each other; and, lastly, he remarks on the "anatomico-physiological relations of the nervous apparatuses." Of these we shall endeavour to furnish our readers with something of an outline, as a sort of introduction to a work which we are persuaded will be generally perused and studied.

The nervous system comprises a pulpy (cineritious) and gelatinous (medullary) substance, the one of a greyish or brownish hue, the other fibrous and more or less perfectly white. The intimate structure of the first substance is unknown. Ruysch, Vienssens, and almost all the contemporaries of Haller, regarded it as a tissue of very fine blood-vessels. Ackerman of Heidelberg, and Walter of Berlin, suppose it to consist of an extremely attenuated prolongation of vessels, becoming more and more minute, so as ultimately to compose the white or fibrous substance. This idea may be

* 'Cet étonnant phénomène est sans doute lié à l'harmonie générale de la création. Quelle peut en être la cause? Nous l'ignorons et vraisemblement nous l'ignorerons toujours. C'est un des mysterés de la création, dont l'homme mesure la surface, mais dont Dieu seul sonde et connait la profondeur.'

traced as far back as the age of Praxagoras, who fancied that where arteries terminate nerves commence. Albinus and Sœmmerring have proved, by their injections, that besides very minute blood vessels, there is also a peculiar substance in this nervous mass; it is therefore only permeated by innumerable blood vessels. Vicq d'Azyr thought he could trace fibres in the pulpy substance, but what he saw, says Dr. Spurzheim, "was the white or truly fibrous substance intermingled or united with the gray."

Anatomists have differed much in opinion respecting the intimate nature of the white nervous substance. Some maintaining that it is tubular, and others solid; some that it possesses no blood vessels, and others that it is entirely composed of them.

According to Lewenbœck, Vieussens, and Steno, the white nervous substance is fibrous, and this opinion Drs. Gall and Spurzheim have espoused.

"By scraping it in the brain," says the latter author, "according to the direction of its fibres, these may be seen with the naked eye, and if the scraping motion be oblique or transverse to their course, they will be seen to be drawn from their natural direction, or to be torn. If the brain be boiled in oil, or macerated in diluted nitric or muriatic acid, or in vinegar, or alcohol, or if it be frozen, the fibrous structure of its white substance will be rendered extremely apparent. Some, however, say, that the fibrousness is then the consequence of a chemical change. As the same result, however, is constantly obtained, and as the fibres, whichever of the processes be employed, are regularly disposed in corresponding situations in a similar manner, the fibrous structure must of necessity be recognised as natural and inherent.

A few authors have attributed the fibrous appearance of the white substance to the impressions of blood vessels. This mistake may be detected at once by comparing the course of the blood vessels with that of the cerebral fibres.

The reality of the fibrousness of the white substance is further opposed, by saying that when the brain is cut, it does not appear, and that it is produced by the force employed to tear the tougher cerebral masses asunder.

To this I reply, that it is impossible, by means of a clean and smooth cut, to discover the structure of any extremely delicate and soft part whatsoever. Such a method is not even available in those cerebral parts that are incontestably fibrous, as the pyramidal bodies, the annular protuberance, the peduncles of the brain, &c.

M. Bogros, of Paris, read a paper to the Academy of Sciences, on the 25th of May 1825, in which he maintained that every nervous fibre is perforated by a canal from its origin to its extreme termination. The accuracy of this statement is far from being ascertained.

The white nervous substance is generally called *medullary*. This name, however, ought to be discontinued for two reasons: in the first place, the idea we form of marrow excludes the conception of fibrousness; and again, the functions of the nervous fibres are so superior to those of the marrow, that it is a pity to designate both by the same word. The name is evidence of the error that was anciently committed, when every thing contained in an osseous cavity was considered as marrow."

Ever since the times of Vesalius and Piccoluomini, very different opinions have prevailed respecting the use of the pulpy or grey substance. Some have regarded it as a secreting organ, either of vital spirits or a nervous fluid. Upon this point, says Dr. Spurzheim, it is probable that unity of sentiment will not be readily obtained.

"———— but seeing that the rudiments of each new shoot in trees are developed in a deposition of mucilaginous-looking matter; that the cartilages in animal bodies are successively liquid, gelatinous, and cartilaginous, and that several turn into firm bone; that anatomists, in many instances, have agreed in deriving the nerves from ganglions; that the brain, too, is at first fluid, then gelatinous, and ultimately fibrous; in fine, that the pulpy nervous substance is always found where the white fibres become more numerous; that these are implanted, so to say, into it, and that a great quantity of blood vessels are expanded on it; Dr. Gall and I have said, that to us it appears to be the source or nourisher of the white fibres. Let us, however, distinguish in this, as in every other place,

between facts and inferences. Supposing that our ideas concerning the inference were really inexact, the peculiarities I have mentioned, and the essential importance of the pulpy substance to the nervous functions must ever be admitted."—p. 7.

The gray colour, according to Dr. Spurzheim, not being essential to the pulpy substance, no objection to this notion of its uses can be derived from the fact of its absence in the ganglia of the *asteriæ*, which some comparative anatomists have asserted. "A gelatinous, or pulpy matter," says Dr. S., "does certainly enter into their constitution, and that is sufficient." He continues,—

"The white substance is also said to be present in the brain and spinal chord before the pulpy or gray appears. If by this the existence of the nervous masses that become white prior to an evident separation into two substances, and to the development of convolutions, be understood, I agree; but if the rudiments of the brain, cerebellum, and spinal chord be said to be white, and not gray in the first instance, I positively deny the assertion. The nervous masses of the head and spine are pulpy or gelatinous, and decidedly grayish in colour before they are white. Neither Dr. Gall nor I have ever thought of saying, that the portion of the completely-developed nervous system, which is pulpy and gray, gives birth to that which is white and fibrous. We did but intend to announce the fact of a gelatinous and grayish state of the brain preceding its fibrous and white condition, precisely as we should say of its entire mass, that it is liquid before it becomes gelatinous.

Our idea of the formation of the nervous system seems more especially plausible, when it appears to be perfectly analogous to what takes place in the osseous. Bone begins by being gelatinous, it is then cartilaginous, and ultimately solid and earthy. I repeat, however, that no one can be more impressed than myself with the difficulty of drawing general conclusions; I am, therefore, very far from anxious to impose such as I do infer upon others. I only insist on the necessity of exactness in regard to the facts related. Putting our theory of the formation out of the question entirely, then Dr. Gall and I still assert our title to be considered as the first who discovered and made known the general relation that prevails, in man and the mammalia, between the pulpy and fibrous substances of the brain and its several parts.

Messrs. Foville and Pinel Grandchamp have of late inferred, from pathological observations, that the superficial cineritious substance of the brain presides over intellectual functions, and its white and deep-seated gray mass over locomotion.

I am disposed to set much store by pathological observations, yet I do not see that we dare place unlimited confidence in them alone. Truth is, I conceive, universally harmonious; truth consequently cannot have been attained in any case until anatomy and physiology and pathology accord exactly. Now, who will maintain that the locomotive powers of animals are great in proportion as their brains contain more of the white nervous substance, and as the striated bodies and the supposed origins of the optic nerves (thalami) are large? Or who will say that the locomotive capacities of inferior tribes, in whose brains the gray substance predominates, are less remarkable than their intellectual endowments? These positions are alike untenable. Dr. Gall and I suppose that each nervous apparatus is composed of the two peculiar substances, the pulpy and the fibrous, and that both are necessary to produce an instrument adequate to perform a particular function."

*Of the origin of the Nervous System.*—It is not necessary to recapitulate the errors of the older anatomists, who supposed the brain to be the origin of all the nerves. In their eyes the spinal chord was a prolongation of the cerebral mass and the great sympathetic, and nerves of the abdomen and thorax continuations of the encephalon and spinal chord. Their opinions, however, were soon questioned.

"Winslow separated the great sympathetic from the spinal chord and brain; he regarded the bundles which run between its ganglions or masses as simple branches of communication, and said, that all the ganglions ought to be considered as peculiar origins of nerves, and consequently as so many little brains.

Sœmmerring also observes, that the sympathetic, having an independent existence, may rather be said to go to than to come from the spinal chord. He adds, that it never forms a trunk in any way proportionate to the number and size of its communicating branches, and that it

never loses itself among muscles, but follows the course of the blood vessels."—(*Hirn und Nerven.*)

Bichat has expressed his opinion in the most positive manner on this subject.

"The ideas of anatomists," says he, "upon this important nerve, seem to me very little accordant with what nature proclaims to be just. All agree in representing it as a medullary chord, extending from the head to the os sacrum, sending various branches, in its course, to the neck, the chest, and the abdomen; having, in short, a distribution analogous to the spinal nerve, from which, or from those of the neck, it is said by some to derive its origin. Whatever the name chosen to designate it may chance to be, sympathetic, intercostal, trisplanchnic, the mode of considering it will still be found to remain unchanged.

This mode I regard as altogether erroneous. In fact there exists no such nerve as these names are used to signify. That which is taken for a nerve is, in truth, but a suite of communications between different nervous centres, situated at various distances from each other.

These centres are the ganglions, scattered through the different regions of the body. They have all an independent and isolated action. Each is a particular magazine, sending a multitude of ramifications, to carry into the respective organs the irradiations of the centre whence they proceed.

'What anatomist,' he continues, 'has not been struck by differences among the nerves? Those of the brain are larger, whiter, more dense, less numerous, and offering few varieties; whilst extreme tenuity, great number, especially around the plexuses, grayish colour, peculiar softness of tissue, frequently occurring varieties, are, on the other hand, the distinguishing characters of the nerves that issue from the ganglions. The only exceptions in either case are in the branches of communication between the cerebral nerves, and in a few of the twigs that unite the little nervous centres."

The brain cannot be the origin of the entire nervous system, for many of the inferior animals have nerves, although they possess nothing that bears the semblance of a brain. There are also many descriptions of human acephali on record who had very perfect nervous systems Some writers, however, relying on the authority of Morgagni, Haller, and Sandifort, have maintained that the brains of acephali exist in the first instance, but that, together with the membranes and bony coverings, they have been destroyed by dropsy of the cavities.

"But no one," says Dr. Spurzheim, "ever saw an acephalic child whose brain and skull exhibited traces of such destruction. The integuments of the upper part of the head, where the destructive process is principally supposed, are commonly entire and healthy. Neither has any one in these cases discovered the cicatrices of ulcers, nor of traces of erosion, nor of simple absorption. The bones that compose the basis of the skull, when they exist in acephali, are smooth and round at the edges. The whole inferior part of the encephalic mass, too, and the optic, auditory, olfactory, and other nerves, occasionally occur in a perfectly sound and natural state. How did these nerves and tender cerebral parts resist the action of a fluid that dissolved or caused the absorption of membranes and firm bone? It must be allowed then, that the brain may be primitively wanting, just as may the legs or arms, and that the nervous apparatus of the body does not derive from the brain.

The first anatomical principle in regard to the nervous system therefore is, that *it is not an unit, but consists of many essentially different parts, which have their own individual origins, and are mutually in communication.*"

This principle Dr. Gall and our author regard as essential to their physiological researches and deductions, and they conceive that they have proved it as satisfactorily with regard to the brain as Bichat had done before them to the nerves of the chest and belly. Besides this first anatomical principle, three other subjects are separately considered. These are—1st, the mode in which the individual parts of the nervous system are formed; 2nd, the order in which they are developed; and 3rd, their reciprocal relations.

Drs. Gall and Spurzheim have always spoken in a general way of the mode and

order in which the cerebral parts are formed and developed; but their attention has been more especially directed to the plurality of the nervous apparatuses, of their communications and mutual relations. M. Tiedemann, and after him M. Serres, has written particularly on the formation and progressive development of the several parts which compose the nervous system. According to the latter, the spinal chord, the cerebellum and the brain, are developed from the circumference towards the centre, and not, as anatomists suppose, from the centre to the circumference. He says there are many centres of formation, and that each apparatus is composed of several parts which are joined together, the extremities commencing, the middles terminating the union. According to this author, the arteries exert a directing influence over the development of the nervous system. He thinks the spinal chord is formed under the guidance of the intercostal, the cerebellum under that of the vertebral, and the brain under that of the carotid arteries. He says that the vessels of the spinal chord appear first, and that the outline of this part is first apparent, the common carotids next, and that their internal branches, which are distributed to the crura of the brain and to the quadrigemina, are then evolved. The vertebral arteries reach the cranium last, and the cerebellum is formed. He says, the brain is developed from before backwards, and the cerebellum from behind forwards, according to the direction of the blood vessels. From this it comes that the callous body is evolved from behind forwards as the arteria callosa gradually appears. M. Serres differs from Tiedemann upon a very important point, for while the former states that the brain is developed from the circumference towards the centre, the latter reverses the order, and Dr. Spurzheim inclines to his opinion. Against a part of this doctrine it may be observed that Dr. Baron lately showed the body of an hydrocephalic child to the Academy of Sciences at Paris, and proved, that although the carotid arteries existed, the anterior cerebral lobes were wanting.*

After describing the structure of ganglions, Dr. Spurzheim makes the following observations on their uses.

"Anatomists," says he, "have always entertained very different opinions upon the uses of the ganglions. Some, with Willis, have ascribed to them the secretion of what they style vital spirits; others, with Vieussens, conceive them destined to separate and to strengthen the nervous fibres; many of the moderns again, Bichat, Reil, and others, think with Johnstone, that they serve to isolate from the influence of the brain the parts which receive their nerves from them. The latter authors divide the nervous systems into two parts; a cerebral and a ganglionary."

"The opinion in regard to the use of the ganglions, which Johnstone, Bichat, and Reil entertained, and which others have adopted from them, is by no means exact. They do not interrupt the reciprocal influence of the brain and nerves of the spinal chord, nor of the brain and viscera of the chest and belly, either in the healthy or pathological state of the body. They most certainly do not prevent impressions made on parts supplied with nerves from them, or diseased sensations of the viscera from being felt. On the contrary, the ganglions would appear essential to the structure of nerves of sensation. They, however, abstract the parts they furnish with nervous energy, from the influence of the will. They also originate nervous fibres; and serve, farther, as points of communication between different nerves. Lastly, as the existence of a nervous fluid is not impossible, nay, as in all likelihood such a fluid does exist, the ganglions may probably aid in its secretion or evolution, and modify its circulation or distribution."

Having established his first principle, viz. that "the nervous system is not a simple unit, but composed of many parts," Dr. Spurzheim proceeds in the next sec

* Bulletin des Sciences Medicales, Juin 1825.

tion to the special consideration of these parts, as they perform particular functions, and these he divides into two great classes, vegetative or organic, and phrenic or mental. To the first class belong the great sympathetic nerve, and the ganglions and plexuses of the thorax and abdomen; to the second, the brain, cerebellum, medulla oblongata, and spinal chord, together with the nerves of these parts. In Dr. Spurzheim's apprehension, this arrangement is founded in nature. He regards the nervous masses of organic as independent of those of phrenic life, and allots a specific kind of nerve to each organic function. These nerves communicate with each other, and with those of the second class called phrenic or mental.

"The nervous masses of vegetative life," he says, "are very simple in the lower tribes of beings; they are more numerous as we mount in the scale, and as the functions of vegetative life become complicated. Their general arrangement, as was to be expected, varies according to the form and disposition of the viscera in species and individuals. If visceral functions, locomotion, and manifestations of sensibility be united, it is also conceivable, that to separate the peculiar nerves of these dissimilar operations from each other, would be next to impossible. This consideration shows why some anatomists have compared the nerves of the caterpillar and worm to the great sympathetic; whilst others have likened them to the intervertebral ganglions, or to the spinal chord itself.

In the vertebral classes of animals, and especially in the mammalia, the nervous masses are distinctly separated, first, into those of vegetative life, and, second, into those of phrenic functions. Each of these may farther be subdivided into two parts: the first into nerves of viscera, or, as M. de Blainville expresses him-elf, into a *visceral* portion, and into nerves of communication; that is, an apparatus which establishes sympathy among the visceral nerves mutually, and between these and the nervous masses of the external senses, and of the affective and intellectual functions."

M. de Blainville divides the nervous masses of *phrenic* life into *central* and *ganglionary*:

"'The first, or central,' says he, 'is susceptible of three degrees of development; is always situated above the intestinal canal, begins with the œsophagus, or pharynx, and is prolonged, more or less, backwardly, so as to correspond to a greater or smaller number of rings of the body when they exist.

'The second, or ganglionary, consists of a very variable number of pairs of ganglions, disposed in a slightly different manner on each side of the first.

'The central portion is always composed of two similar halves, situated, the one to the right, the other to the left, and more or less intimately united, or drawn together by means of the peculiar apparatus, styled commissure. It is divided into two *rigorously similar* portions: a *vertebral* and a *cephalic*, included, as their titles imply, the one in the vertebral canal, the other in the cranium. Both contain gray and white substance, and longitudinal and transverse commissures.

'The cephalic portion consists, 1st, of an inferior bundle called pyramidal, which passes under the annular protuberance, continues long distinct from the cerebral peduncles, and runs to terminate in the anterior, or olfactory lobe, of the brain. 2d. Of a superior bundle, which continues, in the first place, under the name of prolongation of the quadrigeminal bodies, to the cerebellum, and running on the outer sides of the internal geniculated bodies, is lost on the hemispheres; and, in the second, of a deep bundle, which may be followed to the mammillary bodies, and from thence into the optic thalami. The bundles named peduncles of the pineal gland, which are expended on the optic thalamus, are also to be regarded as belonging to this cephalic portion.'"

This author subdivides his second, or ganglionary portion, into ganglions without, and ganglions with, external apparatus. Among the former, he reckons the olfactory masses, the hemispheres, properly so called, the quadrigeminal bodies, and the cerebellum. According to him, the olfactory nerve is a cerebral mass, in which the inferior central bundle terminates. The hemispheres he conceives form another ganglion, having no external apparatus but one transverse, (the corpus callosum,) and two longitudinal

commissures (crura cerebri et fornicis.) It is to this ganglion that the convolutions belong. He regards the corpora striata as appertaining to the convolutions, but remarks that, for certain, their fibres do not originate there, to go to the hemispheres. The quadrigemina and the cerebellum form the third and fourth ganglia, without external apparatus. Upon this author's views, Dr. Spurzheim makes the following observations:

"The title, *visceral part of the nervous system*, appears to me well chosen, but I do not think that the division into central and ganglionary parts, or the other subdivisions proposed, deserve the same approval.

In the first place, I cannot see that they are based on anatomical observation: I do not believe, for instance, that M. de Blainville can demonstrate the continuation of the inferior bundle, or pyramidal body, into the olfactory nerve, nor that he can trace what he calls the deep bundle (*faisceau profond*) of his central portion into the mammillary bodies. Neither do I think that his divisions and subdivisions of the nervous mass pertaining to phrenic life, are consistent with physiological facts; but this, in anatomical classification, is quite essential: it is even acknowledged by M. de Blainville himself as its basis. 'We ought,' says he, 'to consider the nervous system as subdivided into as many parts as there are grand functions performed by the animal body.'"

According to M. Desmoulins, the complete cerebro-spinal system of mammalia, consists, 1st, of the spinal chord; 2d, the cerebellum, which is itself composed of three parts; 3d, the optic lobes, or quadrigemina; 4th, the lobes of the brain; 5th, the olfactory lobes. He admits, however, that these five parts are not always complete in the other classes of vertebral animals, and that one of them may be wanting without detriment to the rest. The sturgeon, lamprey, frog, and some other creatures, have, he says, no cerebellum; the skate and shark no cerebral, and many bony fishes no olfactory lobes. In short, he considers the notion of an unity of the nervous system a chimera.

Dr. Spurzheim thus recapitulates the opinions he has advanced:

"In my apprehension, the cerebro-spinal system is not a simple unit, but a compound of many distinct apparatuses, each of which has particular functions, which, being taken together constitute phrenic life. The several instruments are formed after a general plan, but the physical qualities, as the density, form, size, and colour, of all, individually, differ not only in the classes and in the species, but also in the members composing each kind; the number of particular organs is likewise greater or smaller in the classes and species, according to the amount of the primary functions, or faculties; lastly, each of the apparatuses is simple, or it is compound.

No one, however, can be said to be perfectly simple; each is, at least, double, or one of a pair. The organs of motion and of touch are evidently multiplied.

It is essential, in dividing and subdividing the parts of which the cerebro-spinal system is composed, to keep in harmony with physiology and pathology, and to distinguish between what is common to all, and what is peculiar to each of them. The first grand division must embrace the instruments of motion, and of the five external senses; the second comprise the organs of the affective and intellectual functions.

I think they do wrong who confound the spinal chord with the cerebral masses, and designate both by a common title, such as *encephalon* or *brain*. It is long since Dr. Gall and I pointed out this error, but it is still very generally sanctioned by the French Academy of Sciences, for instance, so late as 1820, its prize having been accorded to the memoir of M. Serres upon the following title.—"Donner une description comparée du cerveau dans les quatre classes des animaux vertebrés, et particulièrement dans ceux des reptiles et des poissons, cherchant à determiner l'analogie des différentes parties de cet organe, ou marquant soigneusement les changes des formes et des proportions éprouvées, et suivant aussi profondement que possible les racines des nerfs cerebreaux." Here the brain and its nerves only are evidently spoken of. M. Serres, however, deemed it proper to consider the nervous mass of the spine as well as of the cranium, and he has designated these two systems by the same name, without any objection being made by the Academy to this arrangement.

Let us turn to the facts that prove the brain and the spinal chord to be perfectly distinct and independent of each other.

These facts are anatomical, physiological, and pathological. I here assume, as an established point, that the functions of the spinal chord differ entirely from those of the brain. The development and demonstration of this truth belong to physiology. I have, accordingly, examined it particularly in my work on Phrenology. Physiological experiments and pathological facts tend equally to show that the brain and spinal chord are masses possessed of distinct functions that cannot be confounded. This volume being destined solely to the discussion of anatomical views, I shall, at present, confine myself to such evidence as anatomy affords of the mutual independence of each of the nervous masses mentioned.

And first—all that has been said, in a general way, upon the origin of the nerves, and their existence, independently of the brain, applies particularly in the case of the spinal chord. The spinal chord sometimes exists in part, sometimes entirely, when the brain is altogether wanting. If, to this, it be objected that the brain had been removed by absorption, the answer I have given to the same proposition, in reference to the nerves in general, must be repeated here. There is also one, and but one, case on record, in which the brain existed without the spinal chord.* It occurred in a child, whose head or heads are preserved in the Hunterian Museum, in London; this child was born with one skull placed vertically upon another. Each of these contained a brain invested with its usual membrane; the dura mater of each brain adhered closely to that of the other, and both were supplied by blood vessels issuing from common trunks. Parts, consequently, as the brain and spinal chord, that exist, or not, independently of each other, cannot constitute one and the same apparatus.

2. The nervous masses of the spinal canal and cranium bear no regular proportion to each other. Man, with his voluminous brain, has a smaller spinal chord than the ox or horse, whose brain is so much less. Bartholin in former times, and Sœmmerring in our own days, made this remark; nevertheless, they both continued to speak of the spinal chord as a process or continuation of the brain.

3. The spinal chord is well known not to decrease in size as it descends in the vertebral canal, and as it sends off nerves. Its volume is even augmented, where its nerves are largest and most numerous; this is obvious, especially towards its sacral end, as may be seen by turning to plate i. fig. 2, where this part of the spinal chord of a fowl is represented; and yet the spinal chord is commonly considered as a prolongation of the white substance of the brain and cerebellum!

4. The direction of its nerves, especially in the mammalia, proves to a certainty, that the spinal chord is not a continuation of the nervous mass of the cranium. Every pair of spinal nerves is made up by several bundles (this is shown by a plate of the spinal chord of a calf); some of these issue from below and run upwardly; others come from above and proceed down and outwardly. Now it would be absurd to suppose that these bundles were continued, or derived either from the lower or upper extremity of the spinal chord. They undoubtedly originate at the place whence they issue individually.

In regard to the fifth, sixth, seventh, and other pairs of nerves, styled cerebral (pl. vi. fig. 1), their direction also shows that they do not come either from the brain or cerebellum. Santorini, when speaking of the course of the fifth pair, remarks, that after descending from the brain, it turns back and runs upwards; and he adds—'if it do not probably come from below, entirely like the accessory nerve.'

The proofs, confirmatory of the mutual independence of the spinal chord and hemispheres of the brain and cerebellum, serve also to demonstrate the propriety of separating the nerves, styled cerebral, from the brain itself. The evidence in this, as in the other case, is anatomical, physiological, and pathological. For the reasons already given, I here rest on anatomical testimonies alone; for information on the others, I refer to my physiological and pathological treatises.*

To proceed, then, we see monsters, occasionally, born without any of the proper cerebral masses, but with olfactory, optic, and acoustic nerves, either severally or altogether perfect; and on the contrary, these nerves, individually or generally, have been found in a state of atrophy, whilst the brain was sound and well developed in all its parts. There is no proportion, whatever, between the cranial nerves and the true cerebral mass. Many animals have them much larger in proportion to their brain than man.

---

* See Philosophical Trans. for 1790, March 25th, and for 1798, Dec. 13th.

* Phrenology; or, The Doctrine of the Mind; Lond. 1825. Observations on Insanity; Lond. 1816.

I repeat, therefore, that I divide and subdivide the nervous masses according to their offices: first, into nerves of vegetative functions; secondly, of external sense, and locomotion; lastly, of affective and intellectual operations: these last inhere in parts, which I style truly cerebral, superadded to the nerves of the senses.

We shall, afterwards, see that the masses belonging to the last-named class of functions require subdividing into instruments of particular functions, after the manner of the external senses.

This principle of the plurality of the nervous apparatuses is the basis of these anatomical considerations, and is indispensable to the physiological researches in which Dr. Gall and I have so long been engaged. It has been, and is still contested, and at the same time it is brought forward as new. A reference, however, to the date and matter of our publications, will assign it to those who can claim it by right. The general idea of a plurality of organs, indeed, must be allowed to be very ancient, and not the discovery of any modern author; before Dr. Gall appeared, however, none of the cerebral functions had been specified, and before our combined investigations were made public the structure of no special apparatus had been demonstrated; for the parts of the encephalon that bear distinguishing titles, do not, by any means, constitute particular organs. The special determination, as well anatomical as physiological, consequently belongs to Dr. Gall and myself."

Thus far we have endeavoured to lay before the reader the groundwork of Dr. Spurzheim's views of the nervous system, and as far as possible in his own words. In our next number we shall hastily pass over what remains of the volume, since we should occupy our paper to little purpose were we minutely to analyse what will be generally read and studied, valued and admired as a whole.

---

# FOREIGN DEPARTMENT.

## ARCHIVES GENERALES DE MEDECINE.

*Case of Anastomosis of the General Venous System with the Venous System of the Abdomen.*

On opening the body of a man, 45 years of age, who had died from a chronic inflammation of the membranes of the brain, the following anatomical peculiarity was observed:

At the place where the external iliac vein of the right side passed under the crural arch, there was a trunk, as large as the fore finger, sent off at a right angle from its inner side, which, following the direction of the superior edge of the os pubis to the symphysis, there changing its course and mounting between the abdominal muscles and peritoneum along the linea alba as far as the umbilicus, entered the posterior edge of the triangular ligament of the liver, and terminated in the sinus of the vena portæ.

From its lower origin to the level of the umbilicus, this venous canal maintained its first magnitude, and thus far was furnished with several valves, the situations of which were marked externally by opaque whitish transverse bands. The coats of this portion of the vessel were very thin and even transparent. From the umbilicus, however, to the termination of the vessel, its anatomical characters were very different; its calibre first diminished by a half, but then increasing gradually in diameter, it assumed the form of a lengthened cone, the basis of which terminated in the vena portæ; the coats of the vessel too, in this part of its course, were thick, opaque, of a yellowish hue, very compact, and without any of the transverse bands which in the lower portion indicated the seats of the valves, for of these the superior or supra-umbilical part was entirely deprived. A semi-lunar valve situated directly behind the umbilicus, marked the limits between these two very dissimilar, though continuous vessels. This valve was capable of closing about two-thirds of the diameter of the venous canal; the clot of blood, with which it was completely filled, extended without any interruption from its origin to its termination.

The vena cavæ, the iliacs, and the trunk of the vena portæ, were all found in their natural state, as were also the

right cavities of the heart, so that the anomaly described cannot be attributed to any mechanical cause.

This I at first considered was the only case of such a preternatural distribution of the venous system which had been observed, but I soon learned that M. Manec, the prosecteur of la Pitié, had met with one which resembled it almost in every particular. M. Manec's preparation is preserved in spirit, and he kindly permitted its examination. The subject of the case was a man of some 60 years of age.

The right external iliac vein a short way above the crural arch, sent off two branches, each as large as a common quill, between which the obturator artery, which arose from the epigastric, passed; the two venous branches soon anastomosed, and then mounted in a tortuous manner, along the usual track of the epigastric artery, to the umbilicus. The epigastric artery, as well as its small accompanying veins, did not differ from their natural condition. The preternatural vessel thus far was large and irregular, its sides extremely thin and transparent. Within a few lines of the umbilicus it turned forwards, passed though this opening, and formed a subcutaneous tumour as large as a walnut. The vessel then entered the abdomen by the same passage, proceeded along the posterior edge of the triangular fold of the peritoneum, ascended along two-thirds of the length of this fold, began to increase sensibly in diameter, and at length opened into the sinus of the vena portæ. The portion of the vein which constituted the hernia, as also that which advanced from thence to the liver, was of a colour, opacity, and thickness, very different from what it was observed to possess in its sub-umbilical portion; there it was very thin; here, on the contrary, its sides were thick, fibrous, and opaque, characters the very opposite of those belonging to the inferior part. The superior half of the vessel was about the size of the little finger. The venous system of the abdomen was examined with care, and in all other respects was found in its natural state.

The anatomical disposition described in these two cases is undoubtedly congenital. Let us glance at the practical conclusions which may be formed from the statements made: in the first subject it is evident that the operation for a crural hernia, in case of its necessity, would have been followed by consequences the more serious, as they would have been unexpected and irremediable. We have seen that the preternatural venous canal, passed from the external iliac vein directly behind the crural arch in its course to the median line; now, from the course commonly taken by a hernial tumour, it is plain that the vessel in the present instance would have been situated on the inner side of the neck of the sac, and any incision in the direction of Gimbernat's ligament would certainly have implicated it. A moment's reflection, on the consequences of such a lesion, will more than ever impress the necessity of using every precaution in dividing the stricture in this species of hernia. The case in question resembles, in other respects, that in which the obturator artery arises from the epigastric, and turns round the inner side of the neck of the hernial sac.

Various other reflections, in regard to umbilical hernia, might here be made. The rule for liberating an incarcerated umbilical hernia is to incise the stricture outwardly and to the left. This precept is founded on the risk that is run of encountering the umbilical vein in a permeable state. The injunction, however, it is evident, would lead into error in case the hernia were to the right, and pushed the umbilical vein, or a canal such as that which occurred in these two cases, to the left. In M. Manec's case too, the tumour formed by the preternatural canal passing though an opening of the linea alba might very readily have been mistaken for an epiplocele. We know that tumours of a similar appearance, and in similar situations have given rise to fatal mistakes. In a case of this kind related in a thesis of Dr. Bigot, an inflammation of the peritoneum was taken for the symptoms of a strangulated epigastric hernia, and the patient died. The supposed hernia was a mere fatty tumour situated exteriorly to the peritoneum. The same mistake would have been as easily committed in M. Manec's case, and the consequences would certainly not have been less lamentable. Such cases are no doubt of rare occurrence, but their possibility ought to be foreseen and the conquences guarded against.

To the remarks of the French author we would further call attention to the possibility of wounding such a vessel as has been described, with the trocar when tapping in the linea alba. The course to be pursued in such a case will suggest itself to the mind of every practitioner.

---

*Case of Melanosis of the Stomach.* By M. ANDRAL, jun.

A female, about fifty years of age, who had come into the hospital (La Charité) with anasarca and ascites, died during the course of the by-gone month. The cause

of the dropsical affection had been sought for in vain; the pulsations of the hear seemed to be perfectly natural; no symptom indicated disease of the liver, and no other viscus appeared to suffer. Neither was the patient's story calculated to throw any light upon the nature of her complaint: the dropsy had come on gradually; she had never felt any pain in the stomach; her breathing had always been unimpeded until the ascites became considerable. During the six weeks which elapsed between the date of this woman's entrance and that of her death, the dropsy never decreased; the general strength declined greatly, the bowels were relaxed from time to time, the appetite was entirely gone, but there was no pain of the epigastrium, and no vomiting; the tongue, too, was natural. The patient sank gradually, and died without exhibiting any symptoms besides those which have been mentioned.

The dissection showed no evidences of lesion of the heart, or of its dependencies; the lungs, somewhat loaded posteriorly, were, however, healthy; the thoracic duct, traced through its whole course, was free, and contained, as usual, a small quantity of colourless limpid serum; the peritoneum was distended with a large quantity of a similar fluid, but it offered no traces either of acute or of chronic inflammation. The liver, spleen, pancreas, mesenteric glands, and urinary apparatus, were all healthy. But the stomach showed a species of alteration which was by no means to have been anticipated. At the moment of dividing its greater arch, a quantity of a fluid as black as ink gushed out. This fluid stained linen and paper precisely as the choroid membrane of the eye would have done. The internal surface of the stomach having been washed and wiped, was found covered with a great many deep black, regularly circular or oval spots of various sizes, from the magnitude of a two-franc piece to that of a millet seed. Around the largest spots, the mucous membrane was of a dark livid hue, which declined gradually, till lost in the pale colour of the rest of the mucous surface, which, neither in thickness nor in consistency presented any peculiarity. The black colour was entirely confined to the mucous membrane, but both of its sides were tinged in an equal degree; where the membrane was thus stained, it was rather firmer than wont. There was nothing else remarkable detected in the course of the alimentary canal.

On the first view of these spots, black as ebony, we were struck with their resemblance to true gangrenous patches, and particularly to the eschars which the ingestion of concentrated sulphuric acid produces in the stomach. But there was entire absence of every thing like the gangrenous smell; and the nature of the patient's death left no room for suspicion of poisoning by any corrosive substance; on the contrary, we perceived the possibility of connecting the black spots with the effusion of the inky fluid contained in the stomach, and then we renounced all idea of a gangrenous affection, an idea, indeed, which neither harmonized with the nature of the symptoms observed during life, nor with that of the lesions themselves, when they were more carefully examined. In this case, then, we only saw an instance of melanosis of the stomach, or, in other words, of a secretion of black colouring matter which, on the one hand, had been deposited in the tissue of the mucous membrane itself, and, on the other, had been exhaled from its free surface into the cavity of the stomach.

I have been induced to publish this case for the following reasons:—1st. There are but few cases on record of a similar deposit of *pigmentum nigrum*, under the form of circumscribed spots in the tissue of the gastric mucous membrane; 2dly. Because the case is not without importance in a medico-legal point of view, as presenting lesions similar in some respects to those which may be produced by sulphuric acid; 3d. Because the case proves, that a fluid similar to that which constitutes the black stuff vomited in certain cases of cancer of the stomach, may be exhaled into this organ, without there being any cancerous, or even true inflammatory affection conjoined.

Another remarkable circumstance connected with this case, is the existence of general dropsy, without any appreciable lesion, whether mechanical or chemical, to account for its occurrence. We cannot arrive at the cause of this dropsical affection, for, to say that it depended on excessive activity of the exhaling vessels, or on atony of the absorbents, or on a want of equilibrium between the action of these two classes of vessels, is to fabricate pure suppositions. All that we can see is, an increase in the quantity of the fluid which fills the areolæ of the cellular, and bedews the abdominal serous membrane. In spite, therefore, of the abundant light which recent labours have shed over the etiology of dropsies, our present case compels us still to admit a certain number of cases, where neither accompanying symptoms nor pathological appearances disclose their cause.

*External application of the Acetate of Morphine in a particular affection of the Stomach and Intestines.*

Rosa S., 18 years of age, entered La Pitié, with a burning skin, small and frequent pulse, the tongue dry and brown on the edges and point, complaining of violent pain upon pressure in the epigastrium, and over the whole abdomen, cardialgia, nausea, and vomiting of every thing, whether liquid or solid, taken into the stomach; the belly was distended, bowels constipated; there was constant pain between the shoulders, and complete extinction of the voice; the urine high coloured and scanty; the countenance animated; continual restlessness, and total absence of sleep.

After a protracted labour, this patient, about twelve months ago, had had a violent attack of peritonitis, which was combated by the most vigorous antiphlogistic means. Since this time the belly never recovered its natural suppleness, and the menstrual discharge only appeared at irregular intervals. To these remains of a serious disease, Rosa S. was attacked about two months ago with a gastro enteritis, (or at least an affection which resembled it,) for which she passed six weeks in a Maison de Santé, where she did not pay strict attention to the physician's prescriptions, and whence she departed as she had entered, vomiting every thing she swallowed, and going on from bad to worse. On entering La Pitié, we conceived we had to do with a chronic inflammatory affection of the stomach, intestines, and peritoneum. M. Serres gave a very unfavourable prognosis, and conceived that the only chance the patient had of recovery was, the observance of a very strict regimen for a long period of time. A large cataplasm was applied over the umbilical region, and all the food ordered was some mucilaginous drink, and a little milk. The moment the liquids were swallowed, however, vomiting, which continued long, was excited. A blister was then applied to the epigastrium, and some jelly of lichen was retained in the stomach. Fourteen days after her entrance, a glass of Barege water, mixed with milk, was tried, divided into three parts, but it brought on such violent vomiting, with convulsive efforts, after the last dose, that the house surgeon, M. Lambert, had to be called. He, being actually engaged in inquiries upon the effects of certain medicines and vegetable salts and alkalies applied to the skin, when he found that the patient had a blister open, seized the opportunity of trying to allay the distressing symptoms by means of the acetate of morphine. He, therefore, took about half a grain in powder, and sprinkled it over the surface, deprived of its epidermis. In a few moments the retching ceased as by enchantment; the patient also passed a better night than she had hitherto done. M. Serres, anxious to ascertain the effects of the morphine, authorized its continued use; half a grain was once more applied, and the patient slept during the whole of the day. Sugar and lichen jelly were still, however, the only aliments that remained on the stomach. The quantity of the acetate employed was gradually increased to two grains, when the patient began to eat bread, preparations of milk, and oranges, without any symptoms of vomiting; the tenderness of the abdomen disappeared by degrees; the patient, on awaking one morning, to her great surprize, recovered her voice on a sudden; the belly became more supple; more nourishing food was allowed, and every thing promises return to perfect health, if the patient submits for a little longer to the prescribed dietetic rules.

---

## THE LANCET.

*London, Saturday, May* 13, 1826.

On the 14th of last March, Mr. ABERNETHY, in the theatre of the College of Surgeons, desired the Members to "*suspend their judgment for a while*," on the alleged abuses—he spoke of the *disinterestedness*, and the honourable intentions of the "Ruling Powers," and further said Mr. A., "we are preparing an answer to all that has been advanced against us, and you shall soon have an explanation of our motives." That *answer*, at length, has been published, and we take this early opportunity to present it to the insulted, vilified *Members* of the Royal College of Surgeons in London.

This *answer* was not at first intended for the public eye, it was to have been confidentially distributed only, to the "Remonstrators," to the Hospital toad-eaters, to his Majesty's Ministers, and to

all the influential Members of the House of Commons. We are indebted for our copy to a Member of the Privy Council, who in a polite note states, that "he considers it will prove of much greater service in our hands than in his." We assure the Honourable Gentleman that we will endeavour to render it serviceable in the attempt to obtain a NEW COLLEGE CHARTER. Where are they who would present a *Memorial* to the College after reading this *Refutation*—where will be found the "Remonstrators"? We really think the *arrogance*, the *impudence*, and the *mendacity* of this "Refutation" are unparalleled. We will here insert the precious document, but, before doing so, let us record the names of the worthies by whom it has been written and promulgated. We ought not to forget persons who confer on us so much distinguished honour, and earnestly desiring that the Members of the College *will not forget them*, we present to their view Messrs. A. COOPER—CLINE—ABERNETHY—FORSTER—CARLISLE—HEAVISIDE—HAWKINS—THOMAS—HEADINGTON—KEATE—VINCENT—M'GREGOR—HOME—WADD—BLIZARD—NORRIS—LYNN—LUCAS—KNIGHT—HARVEY—GUTHRIE; and now for their Refutation.

## "ROYAL COLLEGE OF SURGEONS, IN LONDON.

"*Observations in Refutation of Charges, publicly made by certain Members of the College, against its legally constituted Authorities.*

"IT is asserted that the College has not performed those duties for which it was incorporated.

"That this assertion is unfounded, will be acknowledged by all reflecting and unprejudiced persons, who compare the present state of surgery throughout the country, with that, which existed when the College received its charter in 1800; for it appears that the increased respectability of the profession may be principally attributed to the acts and regulations of the College. This advancement may be mainly ascribed to the more extended education which has been progressively required of the candidates for its diploma; to the zeal and talents of its professors, in displaying and communicating by public lectures, a scientific knowledge of the subjects connected with the healing art; and to the labour and time devoted to the explanation of the contents of its Museum; by which a strong desire for increase of knowledge has been excited.

"The inquiry into the professional education and attainments of candidates, has been rendered more strict in proportion to the general increase of knowledge.

"During one period of the late war, when the applicants for examination were unexpectedly and unprecedently numerous, in consequence of the demands of the public service, many candidates were necessarily examined at the same court; but since the peace, not more candidates have been admitted to examination at any court, than could be examined in an ample and satisfactory manner; and for some time past, each candidate for the diploma, has been separately examined in the presence and hearing of the whole court; which is now the established practice.

"The examiners have so frequently referred candidates to a continuance of their studies, as to induce students in general to think seriously of their examination, and to prepare themselves for it, by a proportionate degree of diligence.

"Had inquiry been made, it would have appeared, that the examiners have not any pecuniary interest in the admission of candidates as members; and it cannot be improper to mention, that the remuneration received by the examiners is a very inadequate recompense for the time and labour bestowed upon the execution of their arduous and important duties.

"There is no profession into which dishonest and dishonourable persons have not at times gained admission; but the council are not aware of a single instance of an empiric having been admitted as a member; and not until lately, has it been understood, that the College possesses the power of removing any member who has been guilty of disgraceful conduct.

"It has been made a subject of complaint, that certificates of summer courses of lectures are not received by the court of examiners. That certificates are not indiscriminately received from every anatomical teacher, and that certificates of

attendance on provincial hospitals are not admitted by the court; and such regulations have been censured as unjust bye-laws of the College.

"The council have in the first instance, to correct his error. There are no bye-laws on these subjects; these are regulations of the court of examiners. The council have been assured by the court of examiners, that so many certificates of attendance on lectures had been presented to them, purporting to be signed by teachers wholly unknown to them, as to render it imperative to define the certificates which in their judgment, it would be proper with a view to the public good, and respectability of the profession, to acknowledge and to receive.

"The council believe, that not any persons except the court of examiners are able to judge correctly on this subject; and while they wish to correct the erroneous supposition of the regulations in question being bye-laws of the College, they cannot but give credit to the court of examiners for the most pure and conscientious motives; and for an earnest desire to promote the dignity of the profession; and necessarily the welfare of the community; in the legitimate exercise of their discretion on these subjects.

"The court of examiners, anxious that students should attend instructions capable of giving them enlarged and scientific views of their profession, knew not how they could obtain from distant places, any evidence of the teacher having, himself, received a liberal professional education, but by the means which they have adopted; yet, notwithstanding such regulations, it cannot be doubted that any member of the College, possessing in an eminent degree the requisite qualifications for becoming a teacher of anatomy, physiology, and pathology; which are united in the recognized schools; would so distinguish himself, as to justify the admission of his certificates. The regulations of the College must always change with the circumstances of the times.

"The subject of attendance on provincial hospitals, had repeatedly engaged the consideration of the court of examiners; but with every respect for, and the highest opinion of, the medical officers belonging to most of these excellent establishments, the council would witness with regret the indiscriminate admission of such certificates.

"The court of examiners, have under certain conditions, recognized attendance on the practice of some of those hospitals; and the council are of opinion, that it would injure the cause of chirurgical science, where the court of examiners to be controlled in the exercise of their discretion on this subject.

"In reference to the complaint of the Museum not being more freely and frequently opened to the public, and of the want of a catalogue; answers to such accusations are contained in the triennial reports from the Board of Curators to the council, in the last of which is the following summary of proceedings, with respect to the catalogue.

"'The following recital of facts will show the council how solicitous the curators have always been that the collection should be properly explained.

'When the Hunterian Collection was received by this College, it was accompanied by two catalogues; one, explanatory of the preparations in the gallery; the other, of the morbid preparations. These had been compiled by Mr. C. Clift, under the direction of Sir Everard Home, from old catalogues, formed under the superintendance of Mr. Hunter; as is proved by his hand-writing in many parts of them. The transcript must have appeared to the curators, and must be allowed, by every one, to contain a very excellent and perfect account of Mr. Hunter's views and opinions in the formation of his collection; though it must also appear very deficient in the explanation of the individual preparations.

'No one, however, supposed, until within a short time, that Mr. Hunter left any other writings of importance explanatory of his Collection, than the before mentioned two catalogues.

'On the completion of the Museum, and the admission of visitors, the want of a descriptive catalogue was soon felt and expressed; and the Board of Curators, in the year 1813, prepared a printed syllabus to gratify scientific inquirers.

'The Curators also consulted Dr. Shaw, who, at the instance of the Board, prepared a third catalogue of objects in the department of natural history.

'A descriptive catalogue of the preparations, which was earnestly desired by the Trustees, has ever been a desideratum of great interest and consideration to the Board of Curators, as may be seen by its minutes.

'The Board regarded Sir Everard Home, as executor of Mr. Hunter, to be the person most proper, and best qualified to undertake the task of preparing the catalogue, which he repeatedly engaged to do.

'At length, in 1816, it was proposed, that all the Curators should become joint labourers in this great work, when Sir Everard Home declared, that it was his

special duty, and that he would admit of no participation in its performance. The result of his labours was the production of a synopsis, which, doubtless, the members of the Council have perused.

'When in 1817 Sir Everard Home became a Trustee, he resigned the office of Curator; and the Board, anxious for the completion of a descriptive catalogue of the contents of the Museum, resolved to engage the Conservator in preparing one under their own superintendance.

'In order to allow him more time for this undertaking, the Board appointed his son to be assistant in his ordinary duties. They directed that the specimens of monstrosity should be removed from the closet in which they were arranged, that it might be appropriated, during the necessary time, to the receipt of books, papers, and other things subservient to the preparation of the catalogue.

'The Board decided, that the contents of the galleries should be arranged in two divisions, each containing sub-divisions, which sub-divisions should also contain series and sub-series.

'The Board further appointed Sir William Blizard, Mr. Cline, and Mr. Abernethy, to be a sub-committee for the special purpose of superintending the formation of the catalogue; to report to the Board from time to time the progress made in it, with such observations relating thereto, as they should consider proper; which sub-committee has presented to the Board the description of the first sub-division of the gallery, comprehending seventeen series, containing 261 preparations, which was approved by the Board, and also by the Trustees.

'When, however, the Conservator began his task of preparing the catalogue, he expressed the wish to obtain some of Mr. Hunter's manuscripts, and thus did the Board of Curators learn for the first time the extent and nature of the manuscripts left by Mr. Hunter, with relation to his collection.

'The Curators, on applying to Sir Everard Home, were informed by him, that he had burned all Mr. Hunter's manuscripts, in consequence of a promise made to Mr. Hunter to that effect.

'Amongst these manuscripts were ten volumes in folio, viz. nine on the anatomy of animals, and one on vegetables. That Mr. Hunter considered these books to be valuable, and not otherwise than creditable to himself, may be inferred by three of them being placed on the table beside him, when his portrait was painted by Sir Joshua Reynolds

'It is said, that Sir Everard Home has even burned Mr. Hunter's manuscript lectures, which he read to his class. But the Curators cannot believe that Mr. Hunter could intend that these works should be burned as unimportant manuscripts. It must, therefore, always remain a subject of deep regret, that Sir Everard Home should have felt himself bound by his promise to Mr. Hunter, to have carried destruction to the extent to which he is said to have done; yet Sir Everard Home has not felt the same obligation to destroy all the writings on morbid anatomy; for the Curators have obtained, through the interposition of the Trustees, two folio volumes, and two solanders of cases and dissections explanatory of a considerable number of the morbid preparations.

'These books contain a careful record of the symptoms and effects of disease during life, and the alterations of structure produced, as ascertained by examination after death. They are highly creditable to Mr. Hunter, as expressing that thirst for knowledge, which led him constantly to seek it by means which we know to be the most certain, but also the most tedious, laborious, disgusting, and unostentatious.'

"The want of a catalogue, as explained in that report, is, in the opinion of the Council, a most satisfactory reason why the Museum has not hitherto been more freely opened to the profession, and why it cannot be for some time, admitting the completion of that catalogue, to be of such paramount importance as the Council deem it to be.

"It may be further observed, that the study of comparative anatomy had been formerly so little prosecuted in this country, that, though many persons were consulted, none could aid in giving a description of the individual preparations in the Hunterian Collection. The Conservator has, however, for a considerable time, been engaged in such researches and inquiries, as have enabled him, not only to give an exact account of each preparation, but also to explain Mr. Hunter's intentions in the formation of his Collection; and the more the time of the Conservator shall be occupied in explaining the contents of the Museum to visitors, the longer necessarily must the completion of the catalogue be retarded.

"With respect to the Library, its formation has been the act of the College, and is intended to aid the professional inquiries of its members, for which purpose it will, when in a proper state, be opened.

"It may be added, that of the numerous applications made by members, for permission to refer to publications therein, every one has been most readily complied with; and the same may be

observed of applications to examine and to make drawings from preparations in the Museum.

"With regard to the supposed indignity offered to the members at large, by their being admitted to the theatre by a door at the back of the building, the Council, aware that any want of respect to its members would be a failure of respect to the institution itself, did not imagine that umbrage would be taken by such an arrangement; at the same time they regret that the present construction of the building precludes the practicability of an alteration.

"It is proper to observe, that no official complaint or remonstrance on this subject has ever been made to the Council. Some years since, indeed, it was mentioned to the board of curators; upon which the members, during one course of lectures, were admitted to their seats from Lincoln's Inn-Fields, through the Museum; the dust occasioned thereby, was found to be injurious to the collection, in consequence of which, the present arrangement was adopted; certainly with a view to the comfort and convenience of the members, and for the preservation of the preparations. When the theatre was built, the great influx of persons into the profession, which has since taken place could not have been anticipated; and it was then thought that the building would be more than adequate to the accommodation of all who would attend.

"It is represented, that the constitution of the College has been the cause of the alleged injuries and grievances.

"The evident object of this representation, is the subversion of the present government of the College, and the substitution of elections to offices of control and responsibility, by members, who for the most part exercise the professions of apothecaries and accoucheurs. There can be little doubt, that in the event of such an innovation, the Institution would soon cease to be a College of Surgeons or of Surgery, and a system of continual intrigue and cabal amongst the profession in general would be introduced.

"The constituted authorities of the College are conscious that they have uniformly exerted themselves to increase the scientific knowledge and respectability of the profession; and that they have never been influenced by the unworthy motives imputed to them; had any of the members of the College expressed dissatisfaction at their proceedings, they would have willingly explained the reasons of their conduct, as well as their future intentions, and have altered whatever could have been shown to be wrong; but when meetings have been convened to subvert the Charter of the College, "under the sanction of which," it is said, "injustice and tyranny have been perpetrated"—when, at these meetings, the most dishonourable motives have been attributed to the members of the Council, they feel it due to themselves to offer this brief, and they trust satisfactory, explanation of their conduct.

By order of the Council,
(Signed) EDMUND BELFOUR,
Secretary."

"Lincoln's-Inn Fields,
26th day of April, 1826."

This is your "*Refutation*," mighty Council, is it, "of charges publicly made by certain Members of the College, against its legally constituted authorities"? Now, we ask, has it refuted a single charge advanced against the College? No, it has not; but on the contrary, it supplies us with ample testimony of the truth of the whole of them. We have not space in our present number to enter into an analysis of this detestable, fraudulent, and impudent production; it will, however, in conjunction with the *new regulations* of the Court of Examiners, and the *new bye-laws* of the Council, furnish the profession with many a rich treat. The College is now fairly before the public, it has attempted a defence of its conduct, to accomplish which, the "Ruling Powers" have not hesitated to insult forty-nine fiftieths of its Members. We beg to direct the attention of the GENERAL PRACTIONER to the last paragraph but one of the "Refutation," where it states that the subversion of the Charter "*would lead to the substitution of elections to offices of control and responsibility, by Members who for the most part exercise the professions of* APOTHECARIES *and* ACCOUCHEURS. *And in the event of such an innovation, the institution would soon cease to be a College of Surgeons or* (and) *of surgery.* Such is the manner in which the great body of Members are spoken of by GUTHRIE—LUDFORD HARVEY—VINCENT—LUCAS—WADD and Co.

What will the MARTINEAUS, CROSSES, DALRYMPLES, HEYS, and HODGSONS, say to this? in fact, will it not be denounced, by all the respectable and well informed Members of the College, as a direct personal insult offered to each Member? To be twitted with professional incapacity to fill offices of "control and responsibility" by such men as LUDFORD HARVEY, THOMPSON FORSTER, LYNN, VINCENT, and Co., things have come to a pretty pass indeed.

The GENERAL PRACTITIONERS, by certain great men, are spoken of as "*draff*," "scum of the profession," "ignorant herd," "pestle and mortar surgeons," &c. &c. &c. Let them come forward manfully, and show the "Ruling Powers" that they can resent insult, vindicate their honour, and maintain their rights; let them join the standard of Messrs. LAWRENCE, WARDROP, YOUNG, CARPUE, KEY, and Co., and they will speedily be spared the taunts of that opprobrious oligarchy, by the imbecile and disgraceful practices of which they have for so long a period been depressed and degraded. Already has the war reached the enemy's camp, and even there our cause has some staunch supporters; to one of whom we are indebted for the following statement:

At a Quarterly Meeting of the Trustees of the Royal College of Surgeons, held on Saturday 6th of May, His Grace the DUKE OF SOMERSET in the Chair, Dr. RAMADGE, a Censor of the College of Physicians and Trustee of the Hunterian Museum, having briefly stated many facts relative to the complaints which were daily made by nearly the whole of the medical profession, in consequence of their limited access to the Museum, &c., proposed that the Museum should be opened four days in the week to the Members of the Medical Profession, to all scientific persons and foreigners; that a regular assistant should be chosen to aid Mr. CLIFT in the Museum, and that no time should be lost in forming a descriptive Catalogue of its contents. He had intended bringing forward this proposition at a former meeting, at which Mr. PEEL was present, but was prevented from so doing, by a circumstance which retarded his attendance, until the Board was about to separate.

Dr. R. felt more particularly interested in the subject, as he had himself devoted the greater portion of his professional life to the study of morbid anatomy, and to the formation of a Museum, and was consequently capable of appreciating all the advantages to be derived from the frequent inspection of a collection so rich in specimens of human and comparative anatomy as that possessed by the College. Dr. R. concluded, by referring to the disputes which had taken place between the members of the surgical profession, and felt confident that very few, if any, concurred in the views of the court of examiners.

Dr. ELLIOTSON said, that he could not conscientiously discharge his duty as one of the Trustees, without entering most completely into the views of Dr. Ramadge, and in using his best efforts to afford greater facilities to the profession by a more frequent admission to the invaluable collection of JOHN HUNTER. He added, that had not Dr. Ramadge anticipated him in the proposed alterations, it was his full determination to make a similar proposition. He particularly dwelt on the length of time which had elapsed since the Government entrusted the Museum to the College, during which, no disposition had been shown by its Curators to render it really useful to the Members, either by allowing them a more frequent access to it, or in forming a Catalogue.

Dr. AGER concurred in the observations of Dr. ELLIOTSON.

On some questions being put to Mr. CLIFT by Dr. RAMADGE, he acknowledged *that the Museum was so circumstanced, that in the event of his decease, there was no one sufficiently acquainted with its contents to be able to write a description of the preparations, or even to point them out to visitors.* This at once excited the surprise of the Duke of Somerset and the other Trustees, one of whom, DEAN GILBERT, immediately said, that on proper application being made to Parliament, he had no doubt a yearly sum would be granted to defray the expense of an assistant to Mr. CLIFT. Dr. RAMADGE briefly observed, it was a notorious fact, that the funds of the College, if properly applied, were quite adequate to that and every other necessary purpose. He conceived that the number of Trustees present was sufficient to effect the proposed alterations, but he thought it would be a breach of courtesy to the other Trustees to complete the change without their participation, for which purpose he proposed an extraordinary meeting, which was fixed by HIS GRACE for May 20th, and the following notice was directed to be sent to all the implicated parties:

"A meeting extraordinary of the trustees of the Museum of the Royal College of Surgeons, at *which the curators are directed to attend*, will be held at the College on Saturday, May 20th, at one o'clock precisely."

---

At the Guy's Anniversary Dinner, a report of which will be found in this day's number, it will be seen that after the toast "The MEMBERS of the College of Surgeons" had been received with great applause, DAME FORSTER returned thanks *on behalf of the College!*—Poor old creature—true it is, that "When age is in, the wit is out;" we could laugh heartily at this ludicrous occurrence, did not senile reverence say it were profane. How *could* DAME FORSTER suppose that the Students of Guy's had applauded the *College of Surgeons*—the *Council!* Had they done so, they would have proved themselves to be a disgrace to the surgical profession.

By the way, our friend SUTLEFFE was at this Dinner, and stated that he should have been delighted with the pious conversation of a gentleman who sat near him, had not "his skin been rather too short for his body."

---

AT a general Meeting of the LONDON OPHTHALMIC INFIRMARY, held on the 18th of June, 1823. It was resolved—"That certificates to pupils be in future countersigned by the Chairman, or by the secretary, and registered by the latter; that a fee of five shillings be paid and set apart towards the *increase of the library.*" Three years, within a month, have now elapsed, since this resolution was adopted, *and yet, not a single book has been purchased*, either for the use of the surgeons or of the students. As the money is ordered to be set apart, we should like to know where it is collecting, and who have the control of the fund.

Is it true that Dr. FARRE receives ONE THIRD of the fees paid by students for witnessing the SURGICAL PRACTICE? If so, it certainly is a most liberal reward for a *triennal rhubarb prescription*; this is indeed, FARRE-*fetched* liberality, and caps, with one exception, every thing of the kind with which we have the happiness to be acquainted. The exception we allude to, is to be found in the ST. GILES's INFIRMARY, where the *nominal* surgeon (fascinating creature!) positively OGLES the Governors out of one hundred guineas a year; whilst the *actual* surgeon

who performs, in a most efficient manner, all the duties of the charity, cannot TWEEDLE them out of one hundred pence. Verily the *charitable* institutions of this metropolis are queerly conducted.

---

We are compelled, from the very great length to which some of our articles have extended, to postpone our intended comments on the proceedings of the Associated Apothecaries.

---

## TRANSFUSION.

An experiment was tried on the dead subject, at Guy's Hospital, on Saturday last, by Mr. Scott, of Newington Causeway, with an ingenious instrument which he has invented for the operation of sanguineous transfusion. The peculiarity of Mr. Scott's apparatus consists chiefly in its capability of transmitting blood from the vein of one person into that of another, without the usual intermedium of a basin or other vessel. The instrument subservient to the operation is *Read's Syringe*, into the extremity of which slides a hollow flexible tube, 14 or 15 inches long, armed with a silver pipe for entering the vein of the *emitter*. A similar tube is screwed to the lateral branch of the syringe, and has a silver pipe, which is inserted into the vein of the *receiver* or patient. The two pipes being inserted, and the syringe put into action, the blood is made to pass freely from one person to the other. To provide against a preference for receiving the blood into an open vessel, Mr. Scott has constructed a small metallic funnel-shaped basin, from the bottom of which runs a brass tube, terminating in a short hollow stem, supported upon a base resembling the foot of a candlestick. This stem being inserted into the extremity of the syringe forms, with the funnel and flexible tube, a free channel for the blood, which is received from the arm into the funnel, and conveyed by the silver pipe into a vein of the patient; the velocity and power of the current being regulated by the action of the syringe, at the discretion of the operator. The pipes are exceedingly well shaped for passing readily into the vein through the orifice made by a lancet.

---

## GUY'S HOSPITAL.

### *ANNIVERSARY DINNER.*

On Wednesday last, the gentlemen educated and educating at Guy's Hospital dined together at the Albion Tavern, Aldersgate-street. About 130 sat down to an excellent dinner. Dr. CHOLMELEY presided on the occasion, being senior physician of Guy's Hospital.

All the medical staff of Guy's Hospital were present, with the exception of Sir Astley Cooper and Dr. Back. One feeling of regret seemed to pervade the company at the absence of Sir Astley, which was not well accounted for. Dr. Back was absent from ill health.

As soon as the cloth was removed "Non nobis Domine" was sung by the professional singers present.

The usual loyal toasts were drunk with much enthusiasm, royalty being pledged in four successive bumpers.

The CHAIRMAN rose to propose a toast, which he was confident all would receive with delight. In the first instance, however, he said he must express his gratification, at witnessing so many old friends, gentlemen who had been many years extensive practitioners. To meet with the friends of early life at such times, and on such occasions as the present, awakened all his former recollections, and induced him to exclaim with the Latin poet—

"Hoc est vivere bis."

He would proceed, however, to the more immediate object of his rising, namely, to propose the "Health of the President, Treasurer, and Governors of Guy's Hospital." The toast was drunk with much applause.

The CHAIRMAN next proposed "Prosperity to the School of Guy's Hospital;" prefacing this toast with some pertinent observations. He observed there was an old adage which implied that each succeeding generation deteriorated. In these times, however, when science is cultivated with so much ardour, when more pains are taken and *more rivalry exists*, he was confident the adage might be reversed, instead of being "progenies vitiosior," they would become "progenies locupletior." By industry they would obtain that knowlege, and those acquirements, which would render them able practitioners, and by attention to the sister sciences—elegant scholars.

After this address commendatory of study, a song was given, rather malapropos, of "the joys which sparkle in the bowl."

"The College of Physicians" was next drunk; and a gentleman, whose name we could not learn, returned thanks.

The next toast proposed was, "The Members of the Royal College of Surgeons;" which was received with great applause.

Mr. THOMPSON FORSTER, one of the "ruling powers," rose to return thanks on behalf of the College.

The CHAIRMAN next gave "The Worshipful Company of Apothecaries." When these *worthies* were named, there was a burst of laughter from all parts of the room, in which the worthy Chairman was at length compelled to join.

(This toast we learn was not intended to be given; it should have been the "Licentiates of the Society of Apothecaries.")

The CHAIRMAN next toasted "The Physicians of Guy's Hospital."

Dr. BRIGHT rose. He said somebody had told him he *must* return thanks. "Gentlemen," said the Doctor with great energy, "*I will* return thanks: to hold the situation of Physician to Guy's Hospital is to be placed at the pinnacle of the profession. I am thankful—I am proud of a situation which has produced a Saunders, a Babington, and a Cholmeley. In the name of all my professional brethren, with all my heart, I thank you. Two of my colleagues I see here, one is absent on account of his health, but he begged me to assure you that his heart is with you. Gentlemen, may you ever continue to be the ornaments of Society—the stars, light and life of man; and may you continue to shower down those blessings on mankind, which your situations enable you so freely to dispense.

"The Surgeons of Guy's Hospital" was given by the Chairman, and received with great applause.

Mr. KEY returned thanks on behalf of his colleagues. He said, that the complimentary manner in which their healths had been received was an evidence that they had at least attempted to discharge their duties faithfully. He was well aware that the success of their exertions mainly depended on the support which they received from old friends. "We are," said Mr. Key with much feeling, "young, and new in office; there are, probably, errors and defects which the hand of time alone can rectify. In return for your kindness, Gentlemen, I pledge you all in a bumper.

"The Lecturers of Guy's Hospital" followed as the next toast.

Dr. ADDISON returned thanks in a well directed and energetic speech, in which he commented on the present defective system of medical education. Although he was conscious of having discharged his duty to those whom he had the honour to teach, and was proud to receive their acknowledgments, still, he said, justice could not be done to the pupil, until a more enlightened and rational system of education should be adopted. (Loud cries of hear, hear.) Until the present incubus was shaken off. It was impossible to contemplate the present system without feelings of horror. A period only of twelve months allotted to the study of the profession, and this received as a qualification for a diploma to practice.

The healths of the Chairman, Sir Astley Cooper, Dr. Babington, the worthy Chaplain of the Hospital, Mr. Stocker, the Demonstrators, and Stewards, were afterwards drunk with a suitable meed of applause.

It is almost impossible to describe the enthusiastic manner in which the health of Sir Astley Cooper was received and drunk.

Mr. BRANSBY COOPER returned thanks on behalf of the worthy Baronet; he said that he had told Sir Astley again and again, that it would be right for him to attend the dinner; but such was Sir A. Cooper's excessive anxiety on the subject, that he could not summon up resolution to come. He was sure, however, that great would be his regret, when he heard of the numerous old friends who would have greeted him.

The conviviality of the evening was kept up to a late hour, and the worthy Chairman, after announcing the names of stewards for the ensuing Anniversary, left the chair about eleven o'clock. Mr. B. Cooper was then unanimously called to the chair, but was soon compelled to leave, in consequence of a professional engagement, when Dr. Addison ably filled the situation during the remainder of the evening.

---

## LONDON PHRENOLOGICAL SOCIETY.

ON Thursday evening, two interesting children were introduced to the Society as characters of very rare cerebral conformation.

One of them, Eliza Henderson, a child only six years and a half of age, possesses a power of declamation truly surprising. At the request of the President, she recited two didactic pieces of considerable length; her mode of delivery called down the plaudits of the whole

Society. Although, from the impressive mode in which she delivered the various parts, she displayed an unusual command of natural language, yet, we cannot but think she occasionally evinced a slight tincturing of artificial tuition. The organs of the frontal space were beautifully developed.

The other child, Master Herbert, who has so distinguished himself by the great facility with which he cuts profiles. In him the organs of size, imitation, form, and constructiveness, are particularly large. In answer to a question put to him by Dr. Spurzheim, he said, that he could recollect the features of any individual for a considerable length of time, even a year, although he might have seen the person only once, and be able to cut out his likeness. (Does not this show that memory is a compound power?) After applying himself for a certain number of hours, he always feels a pain in his forehead, and on being requested to point to the particular part, he placed his finger over the organ of form. This occurrence is not unusual when any particular organ is very active.

A cast from the skull of a New Zealander was presented to the Society by Mr. Wendam, on which a few observations were made.

In the course of the evening, from some observations advanced by Mr. Wendam, Dr. Spurzheim was called on to give his opinion as to the best mode of detecting the frontal sinus. He observed, "The frontal sinus, if it existed, might be very generally detected, by the projection of the bony crest, which could be felt just above the eye-brows. Generally, in young people about the age of 14 or 15, the two tables of the skull will be found to be so near to each other, that you may calculate the strength of the organ as it presents, without making any allowance for the frontal sinus. Again, the distance, in some adults, between the two tables, is so very small, that whether it is filled up by diploë or not, it is of no importance.

In young people, you never find the distance between the two tables very considerable, but as they grow older it enlarges, and although no marked projection may be observable externally, yet in most people who have passed the meridian of life, a frontal sinus will be found. Do you think that in my skull you would find a frontal sinus? (Some answered yes, others no.) I think that in me you would find the two tables very separate, at my age, which is 50. In a great number of persons, the sinus is so low down, that it is rather seated in the orbit than in the forehead, but yet it is called the *frontal* sinus, whereas it ought rather to be called the *orbitar* sinus. With respect to the sutures as a means of discovering the age of the skull, I think it is a very uncertain and incorrect indication."

Dr. Power remarked, that he had the skull of an individual who died at the advanced age of 104, and in this skull the frontal suture was as distinct as either of the others.

At 10 o'clock the Society adjourned.

---

## HOSPITAL REPORTS.

### GUY'S HOSPITAL.

The cases admitted into the Hospital by Mr Key, on Wednesday, April 26th, were as follow:—

*Males*—Ulcer of the leg, two cases of permanent stricture in the urethra; disease of the bladder; opacity of the cornea, with entropium; disease of the tongue; fistula in ano; disease of the ancle joint; disease of the hip.

*Females*—Ulcers of the leg; disease of the knee; amaurosis.

We shall have occasion to give extended reports of the majority of these cases, as they are in many respects interesting, and are under particular plans of treatment.

---

The *ulcer of the leg* is of long standing, and of an indolent nature. The usual treatment employed in indolent ulcers at this Hospital, is to poultice the part until a healthy granulating surface is obtained, and then to apply strapping and a roller. If a stimulating application is required, the nitric acid lotion is used, which is prepared by adding 60 drops of the strong acid to a quart of water. It is the duty of the dresser to bandage and strap the leg, but this is in general left to the patient, and hence it is done improperly; in some cases, the strapping is merely stuck on, and in other instances it is applied so that irregular pressure is made;

and consequently many cases remain in the Hospital for several months, which, by proper attention, would be cured in the same number of weeks.*

The ulcers on the leg in the female case, are of a cachectic nature, and are supposed to arise from a syphilitic taint of constitution. The patient is a delicate looking girl, and a few months since was in the hospital with a foul ulcer on the lip, which had all the characteristics of a *primary* venereal sore. Sir Astley Cooper, who saw it, supposed it must have arisen from the direct application of venereal virus. A report of this case was given in THE LANCET. The ulcers on the legs are superficial; there is much pain in the limbs, and the constitution is altogether depraved. Mr. Key has directed the application of mercurial ointment with opium to the sores, and the exhibition of sarsaparilla.

---

*Disease of the Tongue.*

P. R. ætat. 26, has had disease of the tongue about five months. About one third of the tongue, commencing from the tip, is very hard; there is not, however, much swelling, it appearing to be rather an induration of the natural substance, than arising from any additional deposition. It is attended with much pain, and indeed has been painful from its commencement. There is a fissure on the right side of the tongue, which looks like an incision, and the patient says, when this first appeared, there was a discharge of matter from the opening, and that previous to this, a similar circumstance occurred on the left side, the opening there becoming closed in the course of a few weeks.

Mr. Key has put this patient under an alterative plan of treatment; it does not appear to be his opinion that the disease is of a carcinomatous nature.

---

* The following dialogue took place in our hearing a few weeks since, between one of the surgeons and a patient who had an ulcer in the groin. *Surgeon.* Does your dresser attend to the dressing of this sore?—*Patient.* I have not seen him yet, Sir.—*Surgeon.* How long have you been in the Hospital? *Answer. Nearly three weeks!*

---

## ST. BARTHOLOMEW'S HOSPITAL.

*Small Pox.*

The power of vaccination may be said to have been fairly put to the test, within the last few weeks, by the occurrence of small-pox in this hospital. A female child, afflicted with disease of the spine, had been in the house hearly a fortnight, when she was attacked with the small-pox in its worst form. The child was unable to sustain this additional malady, and on the 9th day of the attack she died. This child had not been vaccinated, but all the other females in the ward, had. In an opposite ward there are two other children, one of them has been vaccinated and the other not. About a fortnight after the death of the first child, the other two were attacked; the one who has not been vaccinated, and is now labouring under the disease in its confluent form, and will in all probability die; whilst the other, which has been vaccinated, had only a few slight pustular eruptions. On the fifth day these began to desquamate, and as the nurse aptly remarked, vanished "like a flash in the pan."

A man, having small-pox in its confluent form, had been admitted into a private ward, on the opposite side of the building, about three weeks before the first child was attacked; this is supposed to be sufficient to account for the disease occurring amongst the children.

This man also died.

---

*Operations—Amputation of a Diseased Knee.*

Robert Smith, of the fraternity of gipsies, 29 years of age, came into the Hospital a fortnight ago, with a disease of the left knee joint, which he stated had existed for eight months. At the time of the attack, he was in Herefordshire. The pain was most severe, and prevented him having any rest, for which the *parish doctor*, "good quiet soul," ordered for him *two blisters and a strengthening plaster!* and these have been the only remedies which have ever been applied. As might be expected, the disease continued, absorption of the cartilage and other morbid changes have taken place, so as to render the joint perfectly useless. The day subsequent to his admission, Mr. Lawrence proposed, an operation, to which the man readily assented, and the following day (Saturday) it was performed. It was found necessary to secure as many as *ten vessels* before the bleeding of the stump could be arrested.